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# **SUBMISSIONS**

to the

MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
STANDING COMMITTEE ON TRANSPORT  
ONTARIO TASK FORCE ON PROVINCIAL RAIL POLICY

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**M-TRAC**

Metro Toronto Residents' Action Committee



# M-TRAC

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Government  
Publications

July 7, 1980

Mr. Armstrong  
Commission Counsel  
Mississauga Railway Accident Inquiry  
201 City Centre Drive  
Mississauga, Ontario

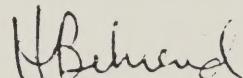
Dear Mr. Armstrong,

We are pleased to make this submission on behalf of residents' and ratepayers' associations and concerned citizens of Metro Toronto.

This brief is one of several submissions made by M-TRAC in an effort to facilitate public input into railway related issues. Although the public recognizes that there are fundamental problems that must be overcome, the most urgent concerns focus on railway safety. It is vital that the Commission of Inquiry formulate recommendations of immediate benefit to persons living near major rail facilities, as well as identify solutions that will provide long term improvements to the general public.

We appreciate having the opportunity to comment on this matter and hope that this brief will be of assistance to you.

Yours very truly,



H. Behrend

M-TRAC

Metro Toronto Residents'  
Action Committee

uncertified  
protection

# OAKT-11

1990-1991 Ontario Provincial Budget: Ontario's First Budget with  
a Sustainable Future

1990-91 Budget

1990-91 Budget: Ontario's First Budget with a Sustainable Future

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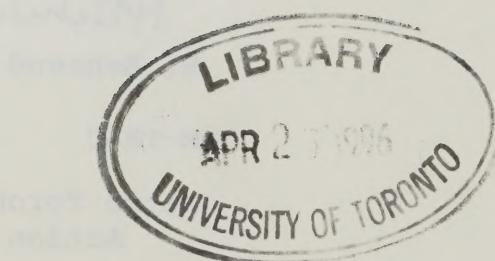
1990-91 Budget: Ontario's First Budget with a Sustainable Future

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1990-91 Budget



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## **Supporting Documents**

- Minutes of Public Meetings
- Summary of Comments Received at Public Meetings
- Legislative Concerns: Bill C-18, Environmental Protection, the C.T.C.,  
letter by Vaughan, Willms
- Railway Safety Issues: Speed, Emergency Response,  
Rerouting, Controls on Abutting Land Use,  
evaluation by M.M.Dillon Ltd.
- Rerouting: IBI Group



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BRIEF ON CONCERNS BY

THE PUBLIC

to

THE MISSISSAUGA RAILWAY

ACCIDENT INQUIRY

on behalf of

M-TRAC

METRO TORONTO RESIDENTS' ACTION COMMITTEE

July 7, 1980



## INTRODUCTION

Railways in Canada are not safe! This has become apparent to observers at the Mississauga Railway Accident Inquiry (MRAI). Knowledgeable individuals in government agencies and the technical community shared this fear for some time; now the public also knows that there are too many accidents. Testimony has disclosed that 4-5,000 railway accidents per year are the norm for Canada with about 100 accidents involving dangerous commodities. These shocking statistics take on more meaning when it is noted that one accident occurs every two hours and that accidents involving dangerous commodities occur at a frequency of two per week. Professor Lukasiewicz recognized the problem and brought it out in the open when he published 'The Railway Game' in 1976. Unfortunately little was done to overcome existing shortcomings and the train derailment at Mississauga was not prevented.

Now that the testimony has been heard and the facts have emerged, the public anticipates prompt and significant action to be taken so that future disasters are prevented. The next railway accident may lead to countless fatalities unless long overdue changes are made.

## PUBLIC SUPPORT

M-TRAC emerged out of the collective concern of numerous ratepayers' and residents' associations and their desire



to speak collectively on the railway problem. The Mississauga derailment on November 10, 1979 was the spark that ignited the kindling. In no time at all, 25 associations joined M-TRAC and now about 65,000 persons are represented by this volunteer organization. Residents and home owners have for years been frustrated for not getting results and resolution of railway related problems, such as safety, noise, vibrations, level crossings, right-of-way protection and many others. They saw M-TRAC as an organization through which they could communicate cohesively to the authorities and participate in resolving various issues of public concern.

#### RAILWAY RELATED ACTIVITIES

In their initial appearance before Metro Transportation Committee, residents' and ratepayers' associations raised nine specific concerns with regard to railway safety. These were as follows:

- the inherent danger in the transportation of hazardous substances through densely populated areas;
- the need for proper routing and scheduling of freight traffic;
- the effectiveness of current maintenance and operating procedures regarding roadbed and rolling stock;
- the adequacy of current railway standards and design criteria;
- the need for proper car identification;
- the need for speed regulations and load restrictions plus strict enforcement thereof. This would guarantee



reduction in noise and vibrations as well as increase safety;

- the obvious danger of mixing cars containing flammable substances with those containing toxic substances;
- the need for public disclosure of all railway data;
- the review of the Canadian Transport Commission's role and its effectiveness in representing and safeguarding the public. Particular emphasis should be placed on the make-up of the C.T.C. and its subordinate position with respect to the American Association of Railways.

Strong support by municipal politicians was forthcoming and resolutions were passed to set up a sub-committee to deal with this matter and to prepare a submission to the MRAI. Metro Toronto's brief, since presented to the Commission, is fully supported by M-TRAC. It should be noted that M-TRAC significantly influenced the scope of the brief through technical input as well as comments by the public. Public comments were obtained through a series of five public meetings throughout Metro Toronto which were co-sponsored by the sub-committee and M-TRAC, and technical input was obtained from M-TRAC's directors and numerous resource persons. The strong support by countless concerned individuals was gratifying and demonstrated that M-TRAC was meeting an important need of informing the public and that the public wanted to be heard. It should also be noted that changes were made to Metro Toronto's brief to reflect evidence heard before the MRAI; some topics were treated in a lesser manner while others



were treated in a more comprehensive manner than was originally anticipated. The reason for this was not because they became less or more important to the public but because it was felt that some topics were dealt with adequately at the MRAI while others need to be elaborated.

In addition to activities concerning the Metro Toronto brief, M-TRAC has also made a submission to the federal government with respect to Bill C-18 (see Appendix 'A') and to the Ontario Task Force on Provincial Rail Policy (see Appendix 'B'). It was felt that it was essential for the public to comment on these two important matters and that it would be expedient for M-TRAC to make these submissions rather than rely on representation by government agencies. Furthermore, M-TRAC is currently lobbying at the City of Toronto with respect to a noise and vibration study which will focus on railway operations in Wards 5 and 10. Again it needs to be emphasized that municipal support has been forthcoming - not federal and provincial.

#### CONCERNS OF THE PUBLIC

M-TRAC's involvement with countless individuals - citizens, politicians and technicians - in the past few months through personal contact or public meetings has been most successful in that it has allowed the directors to gain insight into the prevailing attitude of the public with respect to railway related matters. Some of these comments are documented in



minutes of meetings (see Appendix 'C') while others have been compiled from written comments received by the public (see Appendix 'D'). Throughout the public participation process it became apparent that several issues were significant as they were raised repeatedly. The following is a list of these issues as well as supplementary issues which constitute opinions formed by the directors:

- Individuals including individual ratepayers' and residents' groups have felt helpless and often cite year long struggles and thick correspondence files with respect to railway issues that never get resolved.
- Railway companies and the C.T.C. frequently act in secrecy. Information is frequently not provided, is very sparse, is useless or late in arriving, when requested.
- C.T.C. is a powerful organization that does little to protect the public or act on its behalf. The Railway Transport Commission has done a poor and totally inadequate job in representing the public. A perceived bias exists between R.T.C. employees and their former railway company employers.
- Railway companies are interested in profit at the expense of safety and therefore take countless chances that inevitably will hurt the public.
- Legislation is inadequate in many areas (see Appendix 'E'), notably in the environmental areas both federally and provincially, also in the transportation area. Railway companies do not take sufficient responsibility in the protection of the environment because they are exempted.
- Emergency Response Forces operate in the dark not knowing what hazardous goods are in transit, its location, etc. They are further hampered by jurisdictional problems that inhibit their response and limit their activities.



- Bill C-18 is not going to solve all problems, as much as the federal government may like the public to view it that way. There are significant weaknesses with respect to enforcement and transportation.
- Technical problems regarding rerouting of freight traffic out of areas with high population densities, lower speeds to minimize magnitude of disasters and other measures require further investigation and offer significant solutions to urban railway problems. (see Appendix 'F')
- Funding for railway studies in urban areas is totally inadequate. The Urban Transportation Assistance Program which is based on the Railroad Relocation and Crossing Act has been ineffective in resolving these problems because no incentive is provided to the railway companies to relocate.
- The public is frequently ignored or left out of participating in railway related studies by government agencies both federally and provincially.
- Other issues involving railway operations, inspection procedures, enforcement pertaining to speeds, loads, scheduling, shunting, parking of tank cars; noise and vibration levels, fires, right-of-way protection; transport and handling of hazardous substances; etc.
- Storage of hazardous materials in proximity of major railway facilities is extremely dangerous and can magnify and complicate a disaster at such a location.
- There are further issues but they have been adequately covered by commission counsel and therefore are not repeated.

#### SUMMARY

M-TRAC has taken an active part in expressing the view of concerned residents and ratepayers in Metro Toronto with respect to railway matters at various forums including the MRAI. It is anticipated that these efforts will have results and that



long overdue changes will be initiated to make railway operations in Canada much safer. It is particularly important to focus on urban areas such as Toronto because the impact there is most severe because of population densities and traffic volumes.

We trust that the outcome of the MRAI will be of significant benefit to the public and we anticipate prompt implementation of the Commission's recommendation by the federal government.



## APPENDICES

APPENDIX 'A'      Brief on Railway Regulations, Enforcement, Responsibility and Emergency Planning, presented to the Standing Committee on Transport by M-TRAC, June 25, 1980 (excludes appendices).

APPENDIX 'B'      Brief on Environmental and Social Protection, Land Use Planning and Transportation Planning to the Ontario Task Force on Provincial Rail Policy on behalf of M-TRAC, June 30, 1980 (excludes appendices).

APPENDIX 'C'      Minutes of Public Meetings on Railway Safety jointly sponsored by the Metropolitan Sub-committee respecting the Mississauga Accident Inquiry and M-TRAC.

APPENDIX 'D'      Summary of comments received via comment cards from public meetings and returned notices.

APPENDIX 'E'      Letter by Vaughan, Willms, June 30, 1980, re M-TRAC Submission to MRAI (Grange Inquiry).

APPENDIX 'F'      Paper on Safety Issues, Pre-Implementation Evaluation, prepared by M. M. Dillon Ltd.

APPENDIX 'G'      A Timely Opportunity, IBI Group, April 1978.







BRIEF ON RAILWAY REGULATION, ENFORCEMENT,  
RESPONSIBILITY AND EMERGENCY PLANNING

PRESENTED TO  
THE STANDING COMMITTEE ON TRANSPORT

ON BEHALF OF  
M-TRAC  
METRO TORONTO RESIDENTS' ACTION COMMITTEE

June 25, 1980



M-TRAC is a volunteer organization which reflects the railway related concerns of 25 residents' and ratepayers' associations which border upon the C.P.R. mainline. M-TRAC executives represent more than 65,000 citizens who live in close proximity to major railway facilities and whose lives and those of their families are endangered daily by the transportation of hazardous commodities near their homes.

Since the derailment of C.P.R.'s train 54 in Mississauga on November 10, 1979, which resulted in the evacuation of 250,000 persons, it has become apparent to the public that the handling and transportation of hazardous materials by rail has not taken place with sufficient regard for the safety of the public.

M-TRAC, in order to raise public awareness and effect needed change, has sponsored five public meetings across Metro Toronto, assisted in the preparation of a brief on behalf of the citizens of the Municipality of Metropolitan Toronto (Appendix "A"), has monitored the activities of the Mississauga Railway Accident Inquiry, and has participated in meetings and discussions with numerous public officials, politicians at the municipal, provincial and federal level, representatives from the emergency response forces, technical experts from various government agencies, private engineering and legal consultants and concerned citizens.



As a result of this involvement and consultation, M-TRAC has gained considerable knowledge on the proposed Bill C-18 and on railway safety in general. Furthermore, M-TRAC has also reviewed and examined minutes of proceedings and evidence of the Standing Committee on Transport respecting both Bills C-18 and C-21 in order to make specific comments. (Appendix "B" documents these as potential amendments to Bill C-18.)

This brief, one of several being prepared by M-TRAC for submission to various agencies deals specifically with issues related to Bill C-18, such as regulation, enforcement, responsibility and emergency planning. Other briefs concerning railway safety, transportation and land use planning and environmental protection will be directed to the Mississauga Railway Accident Inquiry and to the Ontario Task Force on Provincial Rail Policy.

The proposed Bill C-18 is detailed and sound in its treatment of the packaging of hazardous commodities but is weak in dealing with problems that arise in the transportation of these substances. Specifically, the following are areas of critical concern:

#### REGULATION

The major public concern is SAFETY. Other concerns relate to the conditions which led to the Mississauga derailment such as high train speed and inadequate maintenance and inspection of rolling stock, track and roadbed. Rerouting of the C.P.R.



mainline in addition to or in conjunction with the reduction of train speeds hauling hazardous materials is often seen as a solution to reduce risk to the public. Additional benefits are seen in the reduction of noise and vibrations that plague homeowners and residents living adjacent to this line.

Other areas of concern to the public are as follows:

Identification of Hazardous Substances - Regulations should mandate new identification and coding procedures for all new cars produced and for cars being refitted. These procedures might include uniform color codes or uniform shapes for all cars in each major category of hazardous substances. Also placarding must be improved to permit night-time visibility and ease of identification by emergency response forces at a distance of 400 feet.

Mixing of Hazardous Substances - The mixing of different hazardous substances on a single train carries a significantly higher risk of a lethal outcome in the event of a derailment producing a spill or B.L.E.V.E. than does the transportation of multiple units of a single chemical on special trains. Mixing should be eliminated within urban areas.

Mixing of Journal Box and Roller Bearing Cars - The mixing of cars with axle designs engineered for two different generations of rail transport is highly dangerous and should be prohibited on trains carrying hazardous substances.



Storage of Hazardous Materials on Sidings and in Marshalling Yards

The storage time of cars containing hazardous materials on sidings and in marshalling yards must be minimized. The regulation should also apply to empty cars.

Train Speeds - Given the number of derailments in Canada in the past five years, it is unacceptable for railway companies to continue to set maximum train speeds when shipping hazardous materials. Safe speeds must be established and enforced differentially according to existing conditions (see Appendix "C").

Conflict of Jurisdiction - "Bureau of Explosives" regulations need to be reviewed to determine their applicability to Canadian conditions.

Humping of Propane Cars - The humping of propane cars should be prohibited and this prohibition must be enforced.

Safe Distance Standards - Safe distance standards must be developed and enacted to protect not only new residential developments but also to protect existing abutting residential and institutional uses.

ENFORCEMENT

Enforcement of existing and proposed legislation is of significant concern and is seen as a major weakness in the proposed legislation.



Since Transport Canada, specifically the Dangerous Goods Branch, does not have the resources to enforce the proposed legislation, the plan is to delegate this responsibility to the provinces, the municipalities and to the public. This is unacceptable.

A solution must be found to achieve strong and effective enforcement short of creating yet another federal bureaucracy analogous to the C.T.C. at-risk to its shortcomings, and to "passing the buck" to lower tier governments and the public.

The term 'necessary and sufficient inspection' must be defined and criteria need to be delineated. That some 25 per cent of all Canadian rolling stock does not meet "Red Book" standards has already emerged at the Grange Inquiry. It indicates that this definition is too vague and that compliance therewith produces inadequate results.

#### RESPONSIBILITY

It is anticipated that the City of Mississauga will address its submission to the Mississauga Railway Accident Inquiry to the topic of "Who Is In Charge?". The obvious concern regarding the responsibility or limit thereof of train personnel, the railway companies (and their CHLOREP extensions), the C.T.C.; and, given a derailment, municipal, provincial and federal authorities, is shared by not only the Emergency Response Forces but also by the public.



This matter needs to be resolved and specific lines of command must be established for every potential condition under which a derailment or spill might occur.

#### EMERGENCY PLANNING

It is apparent that the Emergency Response Forces in Metro Toronto who need to cope with the disasters from derailments lack vital information.

They do not know what hazardous goods are in transit through their jurisdiction at any given time, nor do they know what hazardous goods are located in marshalling yards throughout Metro Toronto or are parked in sidings or are being shunted. Furthermore, they do not know the specific location of a given car containing hazardous goods within a train, nor do they know that train's origin or destination.

Sophisticated techniques of emergency response measures are available to the Metro Toronto Fire Departments, yet the information upon which to implement them is not available. This situation must be rectified and this can be accomplished by adopting a 'Train Information System' at 'Emergency Control Centres'. A description of this is provided in Appendix "C".

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This submission has been prepared with the assistance of numerous individuals with considerable expertise in areas



related to the transport of hazardous substances. It reflects the concern to improve railway safety and is presented on behalf of the public of Metro Toronto. It is requested that the required changes be made to the proposed Bill C-18.



LIST OF APPENDICES

APPENDIX 'A'

'Brief on Railway Safety' presented to the Mississauga Railway Accident Inquiry on behalf of the Municipality of Metropolitan Toronto.

APPENDIX 'B'

Comments on Bill C-18, third draft of Volume I of Regulations regarding Transportation of Dangerous Goods, prepared by M-TRAC.

APPENDIX 'C'

Paper on Safety Issues, Pre-Implementation Evaluation, prepared by M. M. Dillon Ltd.







BRIEF ON ENVIRONMENTAL AND SOCIAL PROTECTION,  
LAND USE PLANNING AND TRANSPORTATION PLANNING

to

THE ONTARIO TASK FORCE  
ON PROVINCIAL RAIL POLICY

on behalf of

M-TRAC

METRO TORONTO RESIDENTS' ACTION COMMITTEE

June 30, 1980



## INTRODUCTION

Railway operations have a significant impact on society. They influence its economic base, shape its social-ogical and physical environment and influence its land use and transportation policies. Canadian railways, for historical reasons, became the backbone of the nation's transportation network and have always operated with significant autonomy.

The consequences of this autonomy have not always been of direct benefit to society. (See Appendix 'A')

The November 10, 1979 C.P.R. train derailment in Mississauga, along with data presented at the current accident inquiry, has shown that railway operations in Canada are not as safe as the public has been led to believe. Furthermore, it has become apparent that railway companies and other vested interest groups have abused the public interest in pursuit of more profitable objectives. It is also now public knowledge that governments and their agencies have been ineffective in adequately protecting the public and, ironically, appear to perceive their role as protecting the railroads from public scrutiny. This situation must be immediately changed.

Since the public has often been fragmented and therefore ineffective in presenting its case to government, numerous residents' and ratepayers' groups have joined forces



to form M-TRAC, the Metro Toronto Residents' Action Committee, so that the public might be given a more cohesive voice.

M-TRAC is a volunteer organization made up of 25 residents and ratepayers' associations throughout Metro Toronto and represents approximately 65,000 persons living near major railway facilities.

M-TRAC's aims have been twofold: first, raising public awareness and facilitating public participation on the issues of railway safety and operation; and second, lobbying for necessary changes in railway related legislation and its enforcement.

To achieve this aim, a number of objectives were established, including input to the Mississauga Railway Accident Inquiry, review and comments on Bill C-18, input to the Ontario Task Force on Provincial Rail Policy and lobbying for a noise and vibration study in central Toronto.

Thus far M-TRAC has been successful in its efforts, particularly at the local level where strong support was obtained from Metro Toronto politicians with respect to representation at the Mississauga Railway Accident Inquiry. Considerable effort went into the preparation of a brief which was submitted to Justice Grange on June 20, 1980. (See Appendix 'B') M-TRAC will make a presentation on July 10, 1980 expanding on the points raised in this brief which will be followed by Metro Toronto's presentation scheduled for July 24, 1980. On the federal level, M-TRAC has had the assistance of several Metro area Members of Parliament with regard to the submission of a brief commenting



on the proposed Bill C-18. This brief was submitted on June 25, 1980 and is attached as Appendix 'C'.

Strong support has been forthcoming from City politicians concerning the City's Noise and Vibration Study in Wards 5 and 10, but little effort has been made by the provincial and federal governments to support this Study. It is regrettable that a study of this nature, with modelling implications beyond the local level, will be conducted without federal or provincial support because it originated in a municipal commitment to local residents.

The need exists for greater provincial and federal government involvement in railway related matters. Although rail transport is a federal jurisdiction, the provinces have responsibility for protecting their residents from adverse effects that are both unreasonable and harmful. Extensive provincial legislation exists that needs to be reviewed, expanded and then applied to railway operations in order to achieve a more effective level of protection in Ontario than has existed in the past.

The establishment of the Ontario Task Force on Provincial Rail Policy is an important step taken by the Government of Ontario. It can result in constructive change. It also indicates that the Government of Ontario recognizes its responsibility towards its residents and has the desire to take such action.

During the past two months, M-TRAC has been actively participating in a number of public meetings on railway safety



and related issues. A set of the minutes of these meetings is attached as Appendix 'D'. In addition to co-sponsoring these meetings with the Municipality of Metro Toronto, M-TRAC attended numerous meetings of residents' and ratepayers' associations and participated in discussions with countless government representatives and members of the technical community. Through this involvement, M-TRAC has obtained considerable insight into this complex issue and has developed a clearer understanding of the public's attitude. M-TRAC's directors and resource persons come from diverse professional backgrounds and have been able to compile and disseminate some of the important facts involved in railway transportation.

This data now needs to be passed on to the appropriate agencies, a role that M-TRAC is willing to undertake. The terms of reference of the Task Force are broad and permit comments on various topics. Since time constraints and current priorities limit discussion to broader railway issues, this brief will deal largely with immediate and specific concerns of Toronto residents and homeowners living near major railway facilities. Our submission will focus on three topics:

- Environmental Protection
- Land Use Planning
- Transportation Planning

We anticipate that further opportunities will arise which will permit M-TRAC to comment further on the public's behalf.



ENVIRONMENTAL AND SOCIAL IMPACT

Railways have a profound impact on urban population and the environment. Derailments of the type that occurred on November 10, 1979 in Mississauga demonstrate one facet of this most serious problem and no doubt will lead to overdue improvements of rail operations and the protection of the public. The Government of Ontario has an immediate and significant interest in this subject and has a responsibility to act decisively to produce required changes for the protection of existing and future populations.

Safety is the overriding concern of countless persons living near major railway facilities. Statistics presented to the Mississauga Railway Accident Inquiry aptly demonstrate the magnitude of this problem.

These safeguards are so inadequate that 4,657 reported accidents \* took place in Canada last year, 113 involving dangerous commodities. This figure excludes most of those that occur in marshalling yards and during shunting in urban areas that involve less than \$750 in damage. This works out to 90 accidents per week, or one accident every two hours year round. Each week two accidents involve dangerous commodities.

It has become clear that railway companies make decisions largely on an economic basis. As social and environmental impact

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\* Exhibits 364 and 359; accidents reported to the C.T.C.



frequently cannot be measured in dollars, little protection is provided to the public. The Mississauga derailment is presenting the magnitude of this impact in economic terms to both the railway companies and government agencies.

The cost of a Mississauga type of derailment occurring under favourable conditions in an industrial suburb of a large metropolitan area will probably amount to \$150 million. Future cost-benefit analysis with respect to railway operations will no doubt reflect this cost when social and environment impacts are assessed. Hopefully, it will not be necessary for an accident involving fatalities to occur before a value is determined for the potential risk to life. This cost also must be reflected in the analysis lest the bias in the evaluation remain with the railway companies.

Train derailments, in particular those involving hazardous commodities, may lead to a B.L.E.V.E. or a spill. Immediate and apparent damage can consist of demolished or incinerated buildings and equipment. Another form of damage that is frequently overlooked or ignored can extend to more serious consequences and result in the contamination of air, water and soil.

Leachates which migrate from the site of impact to the surrounding environment present substantial threats to both surface and underground water and thus to the health of the citizenry.



In Metro Toronto, major river systems such as the Humber, Don and Rouge are continuously threatened and risk contamination by a major spill. Contamination from a spill of harmful, non-degradable and biologically magnifyable substances would have significant mutagenic, carcinogenic and fetus-deforming after-effects that could plague future generations.

The deterioration of the social and physical environment near railway facilities which results from increasing noise and vibration levels and other aspects of nuisance is a major concern of residents and homeowners throughout Metro Toronto. The social cost to persons living immediately adjacent to the tracks are significant. They reflect increased anxiety and nervousness and diminished hearing. Since the social well-being of our communities is an essential component of our society, it must be maintained, otherwise enormous costs will be incurred in order to cope with future malaise.

Property values, too, are adversely affected by increasing noise, vibration and nuisance of railway operations. Vibration, moreover, can cause significant physical deterioration of buildings adjacent to mainline tracks.

The Government of Ontario has a significant role in solving railway related problems and in providing the necessary protection to the public. Although railways are a federal responsibility, many provincial jurisdictions are involved.



In its 'Environmental Protection Act' in 1971, the Province of Ontario imposed fundamental environmental standards which it expanded in 1979 by means of the 'Environmental Protection Amendment Act' to cover the spills of hazardous materials or "pollutants". A specific 'Pesticides Act' was passed in 1973, and a complementary 'Ontario Water Resources Act' became law in 1977.

These acts spoke to public, corporate, municipal and provincial responsibility in the areas of solid waste, water and airborne pollution, and to criteria and standards in the control of noise and vibration. Each spoke to the adverse effects and safe handling of hazardous substances, and referenced civil and criminal sanctions that could be imposed on those who violated these regulations.

The glaring exception to each of these encompassing acts consists of railway operations, an exception granted federally by the 'Railway Act'. In each of these areas, the railways operate extra-legally, unbound by provincial law or municipal by-law. They are self-inspecting, self-policing and, to the best of our information, unbound even by federal environmental protection legislation.

Enforcement of provincial legislation with respect to railway operations is imperative and Ontario must do its utmost to achieve this control or struggle with the legal and financial



consequence of a future disaster.

M-TRAC urges the Government of Ontario to review and amend its legislation in order to include and protect its residents living near existing railway facilities as well as its future ones.

It is not reasonable to plan for future population in new developments and ignore residents in existing communities. Furthermore, the provincial government must participate financially in noise and vibration studies, such as the one currently being proposed by the City of Toronto. To protect future generations that may be affected by spills of dangerous chemicals, M-TRAC proposes that some form of 'Environmental Bond' be posted by the 'owner of the pollutant' or by the 'person having control of the pollutant', over and above that mandated by Part VIII-A-68a (1) (i) of Bill 24, which refers to the "restoration of the natural environment", to cover any future cost that may arise.

Operating firms must be forced to set aside appropriate funds in such performance bonds or trusts, in case of bankruptcy or divestment, to pay for clean-up or closing of spill or land-fill sites and to pay for monitoring leachate related effects. Serious civil and criminal sanctions should be imposed on firms that violate such regulation.

Action such as is proposed would protect the public now and in the future.



LAND USE PLANNING

The Government of Ontario must not restrict its planning activities only to the protection of future populations as in the case of new development, but must also establish policies and enforce compliance so that the existing population is also protected. Railway companies, like other corporations, should comply with provincial legislation. Railway companies must also be accountable to the public. It is inappropriate to control industry so that it does not contaminate the soil, air and water and then to exempt railways from the responsibility to comply with environmental and planning guidelines that affect other users of these systems.

The argument put forth by the Canadian Transport Commission places the responsibility for the protection of residents living near major railway transportation facilities in Toronto onto the municipality on the ground that the municipality has permitted the development of "inappropriate land use" adjacent to major rail lines. To extend this argument further would place the responsibility onto the provincial government because municipalities are creatures of the provinces. It is unrealistic to expect municipalities to act with more wisdom than their creators and to protect their residents prior to the enactment of zoning regulations. The argument 'who was there first' becomes academic and fails to recognize major changes involving the



character and magnitude of railway traffic that have occurred and are at the root of the current problem.

Transportation of large volumes of freight, particularly of hazardous goods, on railway routes, is incompatible with abutting residential land use. The railways' role is to transport goods and people safely and efficiently and to operate at a profit. This has inevitably led to higher speeds, greater noise and vibration and increased risk. These adverse effects have been imposed on users of abutting properties. Residential land use, on the other hand, is based on the concept of shelter and security that also meets certain social and recreational needs of the public. Hence, rail transportation and residential land use activities, in close proximity, impinge deleteriously on each other and thereby limit each other's effective utilization.

One solution which overcomes this incompatibility can be reached by removing the railway or eliminating abutting residential land use. A re-routing concept which has considerable merit is described in further detail in Appendix 'C'. If such an option is too extreme, a compromise must be struck whereby benefits and disbenefits are distributed equitably.

In the past, residents and homeowners have had an unfair burden placed upon them by the railways. This situation must change. Railways must shoulder a greater portion of the social cost of their operations.



Criteria with respect to noise and vibration must be applied to reduce levels to acceptable ranges for residential use.

Consideration should be given to the development of "Buffer Strips" adjacent to railway facilities. These should be sufficiently wide to permit ready access by emergency response forces and to facilitate the containment of derailments and/or spills. Facilities which might be required in pre-fire planning might also be incorporated into these spaces. Open space provided by buffer strips could be used as right-of-ways for underground utilities and, in the case of new development at the urban fringe, for agricultural purposes. In cases where it is not practical to obtain the required land, methods such as barriers must be employed in railway rights-of-way to contain the adverse effects of railway operation. Some industrial use may be acceptable but each use should be evaluated on an individual basis. A specific industry and its location should be evaluated in relation to the geography of the railway line and to other abutting land uses. Under no circumstances should the storage of hazardous substances be permitted near railway tracks or in such a buffer strip. This dangerous practice now exists in many locations along the North Toronto Subdivision and must be eliminated with all due haste.

M-TRAC also requests that the Government of Ontario improve its noise standards and guidelines and enforce compliance



with regard to both new developments and existing communities. It appears that procedures which were developed as planning tools are being used arbitrarily for design purposes with little consideration for the specific development and location. This has resulted in many examples throughout Metro Toronto, as in Scarborough, where permitted residential development that is poorly sited is located in close proximity of railway lines.

Vibration as well has become of increasing concern to the public and standards and guidelines must be developed and enforced just as they have been for noise. These standards and guidelines should then be applied to all new developments as well as existing communities. It is not satisfactory to enforce vibration control for industry alone. Railways are significant generators of vibration. According to many residents living near tracks, this vibration causes considerable damage and must comply to the above standards.



TRANSPORTATION PLANNING

Transportation and land use planning are inter-related components that are subject to provincial government policies. Through adoption of appropriate planning policies governments can optimize efficient movement of people and goods and minimize adverse social and environmental effects that accrue to the public. In the case of railway transportation, although generally a federal responsibility (with the exceptions of Northland and commuter transit operations), the Government of Ontario is in a position to produce change if it is willing to take an active role in solving problems.

Ontario has significant legislative power in the form of the 'Planning Act', 'Environmental Protection Act', Water Resources Act', etc. It can effect changes in railway operation through its control over land use and the environment. This power has been exercised before in challenging a federal transportation project, namely the proposed Pickering Aeroport. It can be exercised again. The Government of Ontario can work in a co-operative spirit with other governments and corporations. Failing this, it can exercise its full power for the public good.

In urban areas, particularly in Metro Toronto, the railway safety problem must be resolved through prompt decisive action. The risk to life and the adverse effects of railway



operations experienced by the public in Toronto are particularly pronounced within the crosstown C.P. corridor because of the sheer volume of traffic. The C.P.R. North Toronto Subdivision is probably the busiest railway route in Canada. Approximately sixty trains per day with up to 120 cars and frequently pulled by three to six engines pass through built-up residential areas with population densities of over 20,000 persons per square mile.

300,000 cargo loads of freight with significant volumes of hazardous goods are routed via this main line each year to and from the Agincourt marshalling yard. A portion of this traffic is backtracked, an artifact of inefficient system configuration. For example, goods from Northern Ontario and the West must first be transported to this yard before they can be routed to South-Western Ontario and the United States. The reverse routing procedure also creates this double traffic flow. This type of inefficiency not only increases transport costs; it increases the potential risk to the environment and adds to the deleterious impact of noise and vibration on residents near the track.

The 'Brief on Railway Safety' presented to the Mississauga Railway Accident Inquiry by the Municipality of Metropolitan Toronto recommends re-routing of trains handling dangerous commodities around Metropolitan Toronto. The benefits



which may result from the implementation of such a scheme could be formidable if measured in potential lives saved. If all mainline traffic were to be re-routed via a new northern route, savings in transportation costs through reduction of backhaul mileage alone would offset a portion of the construction cost. If the construction of a new route cannot be fully justified, it may be possible to re-route traffic via the C.N.R. main line. Some improvements might be required to increase the capacity of this track to accommodate the additional C.P.R. traffic. Re-routing of traffic could lead to the relocation of some industrial facilities. Although this would involve the relocation of jobs and tax revenues from the municipality, compensating revenues would develop when the land was re-developed. Scheduling priorities could be resolved in the same way that they are in other segments of "shared track".

Obviously, re-routing of mainline railway traffic in Metro Toronto must be studied in a comprehensive way. Considerable opportunities would arise through the rationalizing of the existing routing system. Benefits could accrue to the public, the railway companies and the government. Its retention as an alternative transportation corridor should be strongly considered although potential redevelopment of railway property could occur.

M-TRAC urges the Government of Ontario to co-operate with the federal government to facilitate the comprehensive review



of railway system configuration in the greater Metro Toronto area with particular emphasis on the possible relocation of C.P.R. mainline traffic. It is recognized that funding for such a study must come from the federal government and that funds administered under the Urban Transportation Assistance Program (U.T.A.P.) are committed in Ontario until 1983. Hence, M-TRAC urges the Government of Ontario to request that an increased allowance under U.T.A.P. be made to Ontario and that existing dis-incentives be removed from the Railway Relocation and Crossing Act. Appendix 'E' describes in more detail a methodology regarding a study for rerouting trains and also specifies existing problem areas in the R.R.C.A. which must be eliminated. It should be noted that the City of Windsor's brief to the Mississauga Railway Accident Inquiry makes reference to these same problems.



SUMMARY

M-TRAC proposes the following:

- Review and improvement of provincial legislation with respect to railway safety and operation.
- Active participation by the provincial government and the public in railway related issues.
- Compulsory posting of an 'Environmental Bond' to protect existing and future populations from the effects of long term contamination resulting from spills.
- Creation of 'Buffer Strips' adjacent to rail facilities or other protective measures.
- Re-routing of mainline freight traffic from the C.P.R. North Toronto subdivision.



LIST OF APPENDICES

APPENDIX 'A'      Brief of the Corporation of the City of Windsor to the Mississauga Railway Accident Inquiry; 1980.

APPENDIX 'B'      Brief on Railway Safety presented to the Mississauga Railway Accident Inquiry on behalf of the Municipality of Metropolitan Toronto

APPENDIX 'C'      Brief on Railway Regulation, Enforcement, Responsibility and Emergency Planning, presented to the Standing Committee on Transport by M-TRAC (Metro Toronto Residents' Action Committee); June 25, 1980. (Excludes appendices)

APPENDIX 'D'      Minutes of Public Meetings on Railway Safety jointly sponsored by the Metropolitan Toronto Sub-Committee respecting the Mississauga Accident Inquiry and M-TRAC (Metro Toronto Residents' Action Committee).

APPENDIX 'E'      Paper on Safety Issues, Pre-Implementation Evaluations, prepared by M. M. Dillon Ltd.



**MINUTES OF PUBLIC MEETINGS ON RAILWAY SAFETY JOINTLY  
SPONSORED BY THE METROPOLITAN TORONTO SUB-COMMITTEE  
RESPECTING THE MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
AND M-TRAC (METRO TORONTO RESIDENTS ACTION COMMITTEE)**

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Date: Wednesday, May 14, 1980

Time: 8:13 o'clock p.m.

Location: Gymnasium  
Brown Public School  
454 Avenue Road  
Toronto, Ontario

Present:

Sub-Committee

Mr. Morley Kells  
Mr. Ying Hope

M-TRAC

Mr. Harry Behrend  
Mr. David Scott  
Mrs. Sheila Oxenham

Resource Persons

Mrs. Joan Lax, Weir and Foulds  
Mr. David Stirling, M.M. Dillon Limited  
Mr. T. D. Ellison, Director, Transport of Dangerous Goods Branch,  
Transport Canada  
Mr. Rem Gaade, Research Officer, Fire Department, City of Toronto  
Mr. D. J. Batty, Supervisor, Environmental Engineering Branch,  
Public Works Department, City of Toronto.

Also Present

Mr. Frank Faubert, Controller, Borough of Scarborough and a  
Member of the Metropolitan Council  
Mrs. June Rowlands, Alderman, City of Toronto, and a Member  
of the Metropolitan Council  
Mr. Arthur C. Eggleton, Alderman, City of Toronto, and a  
Member of the Metropolitan Council  
Mr. John McFadden, representing Mr. David Crombie  
Mr. Bill Armstrong, representing the Honourable John Roberts, Minister of  
the Environment, Science and Technology, Canada  
Mr. D. H. Cooke, Station Maintenance Superintendent, Ontario Hydro  
Mr. Norris Zucchetti, Metropolitan Planning Department.



Opening Remarks by Mr. David Scott

Mr. Scott welcomed the public to the meeting; introduced the elected officials and resource persons who were present; and briefly outlined the programme of the evening.

Mr. Harry Behrend

Mr. Behrend gave an overview of the concerns of the citizens of Metropolitan Toronto on railway safety; briefly explained the objectives of M-TRAC; and outlined the on-going work of M-TRAC in the following areas:

- (i) representation of public interest at the Mississauga Railway Accident Inquiry, in conjunction with the Sub-Committee established by The Municipality of Metropolitan Toronto in this respect;
- (ii) requesting the City of Toronto to conduct a noise and vibration study in Central Toronto;
- (iii) establishing liaison with the Ontario Task Force on Provincial Rail Policy with a view to presenting its comments on railway safety and railway operations to the Task Force;
- (iv) reviewing and commenting, where necessary, Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa and which sets standards for and regulate the transportation of dangerous goods.

Mr. Ying Hope

Mr. Hope briefly outlined the various stages of the Mississauga Railway Accident Inquiry. He urged the public to submit their comments on railway safety to the Sub-Committee in order that such concerns can also be conveyed to the Inquiry.

He reiterated that the City of Toronto is in support of the representation of the interests of the citizens of Metropolitan Toronto at the Inquiry; and referred to a report of the Medical Officer of Health of the City of Toronto on the transportation of Raffinate, which will be considered by City Council in the near future and which contains recommendations that the Local Board of Health express its concerns to the Minister of Transport for Canada on the transportation of toxic chemicals; and that a copy of the proposed federal legislation respecting the transportation of dangerous goods be obtained for possible input while it is at the committee stage.

He talked about the "Spills Bill" recently passed by the Provincial Legislature. He also noted that there have been 62 spills in the first 9 months of last year in nearby areas, and about 600 - 1,000 spills in recent years in Ontario involving 1.2 gallons of hazardous materials.



Presentation of Film - B.L.E.V.E.

The film B.L.E.V.E. (Boiling Liquid Expanding Vapor Explosion) was shown.

Mr. T. D. Ellison

Mr. Ellison advised that the legislation, as it stands at present, on the transportation of dangerous goods, is insufficient; briefly outlined what is being proposed in Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa to promote public safety in the transportation of dangerous goods. The proposed legislation, when enacted, will give the Federal Government the authority to enter into agreements with the Provinces in the administration and enforcement of the new regulations.

He emphasized the need for more CTC accountability to the public. He talked about the design of packages for dangerous or hazardous materials, emphasizing the responsible tank car manufacturers and users in Metropolitan Toronto. The Federal Government does not have the resources to deal with all the violations and abuses to both existing and proposed legislation. He envisaged both Provincial and Municipal authorities as being involved in compliance with proposed legislation.

Mr. David Stirling

Mr. Stirling outlined some of the results of the investigations which he had conducted following appointment by The Municipality of Metropolitan Toronto to assist in the presentation of a brief to the Inquiry.

A map on land use and population densities along major railway corridors (CP and CN lines) through Metropolitan Toronto was presented. Attention was drawn to the beltway transportation utility corridor adjacent to the CN line north of Metro Toronto. There is a definite concern on the use of the CP Line which travels across Metropolitan Toronto to and from the Agincourt Marshalling Yard, carrying cargos not necessarily destined to and from Metropolitan Toronto.

A map on main railway freight routes in Central Ontario was also presented. The speed of trains handling dangerous goods is of concern. The present speed for CPR is 50 miles per hour. The question of a safe speed will be included in the brief to the Inquiry.

He talked about the different kinds of hazardous goods on the same train and the ways to prevent accidents. He mentioned 5 industrial sites along the CP main line in Metro Toronto where dangerous goods are stored. He said that it is not known that 50 mph, which is the speed established by CP for its trains passing through Metro Toronto, is a safe speed.



Mrs. Joan Lax

Mrs. Lax briefly explained her role insofar as attendance at the Mississauga Railway Accident Inquiry is concerned. She also encouraged the public to submit their briefs to the Sub-Committee or the Inquiry and to also personally attend the hearings at the Inquiry in Mississauga.

Intermission

A brief intermission followed.

Discussion Period

The following persons raised questions and comments:

Mr. C. W. Houston, Citizen  
Mr. D. Hughes, 99 Cottingham Street  
Mr. Jack F. V. Barton, 25 MacLennan Avenue  
Mr. Adrian Adamson, 23 Rathnelly Avenue  
Mr. Ken Wood, 36 Walker Avenue  
Mr. I. L. Clunie, 20 Astley Avenue  
Mr. Don Cianci, 80 Pricefield Road  
Mr. Roy Linder, 137 Marlborough Place  
Ms Carde Nelson 198 MacPherson Avenue  
Mrs. June Rowlands, Alderman, City of Toronto and a Member of  
the Metropolitan Council  
Mr. David Scott, M-TRAC

The following is a summary of the concerns raised:

- (1) Moving of CP Line north to the outskirts of Metropolitan Toronto adjacent to the existing CN Line;
- (2) The following should be investigated to re-inforce the suggestion to move the main CP Line to the north, adjacent to the existing CN Line:
  - (a) estimated cost of construction of new track;
  - (b) could the existing CN Line operationally, physically and structurally accommodate the addition of the CP trains?
  - (c) what component of the existing train traffic is not originating from or destined to Metro, i.e. "through traffic";
- (3) Is tanker truck traffic as much a danger as the rail line traffic? What is the existing data on tanker truck traffic and routing that is related to this issue or that could be used to formulate an alternative to trains;
- (4) Reduction of speed limits for trains to 25 m.p.h.;



- (5) Control of noise and vibrations created by travelling trains;
- (6) The ties/relationship of the CTC and the rail companies - process an "exercise in futility"; CTC is powerless;
- (7) Storage of dangerous materials in industrial spots adjacent to railway lines is potential danger;
- (8) Improvement of "placards" so that identification of the materials contained in the various cars could be simplified and expedited in the case of an emergency. Use of different colours for different dangerous materials should be explored;
- (9) Imposition of extra tarriffs for trains that are travelling through densely populated areas;
- (10) Re-routing of tracks to north of Metro might be expensive - but the benefit of the increased value of the land left by the original track should also be put into focus;
- (11) Storage of trains (including tank cars) near residential areas is a potential danger;
- (12) Adequacy of Bill C-18 - can it prevent another Mississauga disaster?

During the discussion period, the following resource persons made these comments:

Mr. D. J. Batty

Mr. Batty updated the public with respect to a proposed noise and vibration study to be undertaken by the City of Toronto. The proposal is now before the City Budget Committee for review. The purpose of the study is to establish the degree of concern in the City of Toronto with respect to noise and vibrations. Three phases of the study are involved:

- (i) study of the noise and vibration during the summer months;
- (ii) study of the noise and vibration during the winter months;
- (iii) an attitude survey on how people feel generally.

Mr. Rem Gaarde

Mr. Gaarde briefly outlined the activities of the Toronto Fire Department relating to hazardous materials emergency planning. The following were noted:

- Equipping of Communications Centre and Mobile Command Vehicle with reference books and "first strike" microfiche data concerning hazardous materials, and training of operator in its use;



- Senior officers have attended an intensive 3-day course in handling hazardous material emergencies;
- Development of an in-house training program for all fire fighters;
- Issue of monthly bulletins to all crews on hazardous material problems and procedures;
- Development of specially designed protective clothing for selected crews;
- Allocation of special equipment to five selected trucks to act as hazardous material units;
- Setting up of a Committee of senior officers, which meets regularly to discuss operational activities and plan for future concerns;
- Presentation to Federal authorities of a report expressing the fire service's opinion on the proposed Federal regulations;
- Study to determine merits of a By-law governing hazardous material truck routes within the City of Toronto;
- Upgrading of foam stocks and making minor changes on foam distribution to enhance coverage of potential problem areas;
- Integration of standard decontamination procedures for crews returning from hazardous material accidents.

The meeting adjourned at 10:38 o'clock p.m.

  
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Shirley Kell  
Chairman.



MINUTES OF PUBLIC MEETINGS ON RAILWAY SAFETY JOINTLY  
SPONSORED BY THE METROPOLITAN TORONTO SUB-COMMITTEE  
RESPECTING THE MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
AND M-TRAC (METRO TORONTO RESIDENTS ACTION COMMITTEE)

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Date: Thursday, May 15, 1980

Time: 8:20 o'clock p.m.

Location: Auditorium  
Etobicoke Collegiate  
89 Montgomery Road  
Toronto, Ontario

Present:

Sub-Committee

Mr. Morley Kells

M-TRAC

Mr. Harry Behrend  
Mr. David Scott  
Mrs. Sheila Oxenham  
Mr. Peter McLuskey

Resource Persons

Mrs. Joan Lax, Weir and Foulds  
Mr. David Stirling, M.M. Dillon Limited  
Miss Marjorie K. Stailkovich, Senior Advisor, Risk Analysis,  
Transport of Dangerous Goods Branch, Transport Canada  
Mr. Bryan Mitchell, Fire Chief, Borough of Etobicoke

Also Present

Mr. C. Dennis Flynn, Mayor, Borough of Etobicoke, and a Member of the  
Metropolitan Council  
Mr. Bruce Sinclair, Controller, Borough of Etobicoke, and a Member  
of the Metropolitan Council  
Mr. Alex Marchetti, Alderman, Borough of Etobicoke  
Mr. Dick O'Brien, Alderman, Borough of Etobicoke  
Mr. Ed Storus, Information Planning Division, Ontario Hydro  
Mr. Neil J. McMurtrie, Director of Central Services, Ontario Hydro

Ms K. Odila Rashid, Metropolitan Planning Department



Letters had been received from Mr. Mike Wilson, M.P. and Mr. Ken Robinson, M.P., stating that they were in support of what the Metropolitan Toronto Sub-Committee respecting the Mississauga Railway Accident Inquiry and M-TRAC were doing, but were unable to attend the meeting due to previous commitments.

Opening Remarks by Mr. Morley Kells

Mr. Kells welcomed the public to the meeting; introduced the elected officials present at the meeting; and briefly outlined the purpose of this meeting.

Mr. Peter McLuskey

Mr. McLuskey outlined the aims of M-TRAC on the issue of railway safety; announced the programme of the evening; introduced the resource persons who were present; and gave a brief introduction of the film to be shown.

Mr. Harry Behrend

Mr. Behrend gave an overview of the concerns of the citizens of Metropolitan Toronto on railway safety; briefly explained the objectives of M-TRAC; and outlined the on-going work of M-TRAC in the following areas:

- (i) representation of public interest at the Mississauga Railway Accident Inquiry, in conjunction with the Sub-Committee established by The Municipality of Metropolitan Toronto in this respect;
- (ii) requesting the City of Toronto to conduct a noise and vibration study in Central Toronto;
- (iii) establishing liaison with the Ontario Task Force on Provincial Rail Policy with a view to presenting its comments on railway safety and railway operations to the Task Force;
- (iv) reviewing and commenting, where necessary, Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa and which sets standards for and regulate the transportation of dangerous goods.

Presentation of Film - B.L.E.V.E.

The film B.L.E.V.E. was shown.

Miss Marjorie K. Stailkovich

Miss Stailkovich briefly outlined what is being proposed in Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa to promote public safety in the transportation of dangerous goods.



Mr. David Stirling

A map on land use and population densities along major railway corridors (CP and CN Lines) through Metropolitan Toronto was presented.

Mr. Stirling questioned the adequacies of the CTC's inspection procedures concerning track and car maintenance in built up areas.

A map on main railway freight routes in Central Ontario was also presented.

Mr. Stirling advised that the following are some of the important issues which will be included in the brief to be presented to the Mississauga Railway Accident Inquiry on behalf of The Municipality of Metropolitan Toronto:

- (i) potential re-routing of the CP Line;
- (ii) the question of a safe speed for freight trains;
- (iii) maintenance procedure of the railway track, particularly in built-up areas;
- (iv) prohibition of mixing cars containing different dangerous commodities;
- (v) documentation of accidents in the last five years;
- (vi) the relationship between the government and the CTC.

Mrs. Joan Lax

Mrs. Lax outlined the following terms of reference of the Mississauga Railway Accident Inquiry:

- (1) the contributing factors and causes of the derailment at Mississauga, Ontario, on November 10, 1979, and the subsequent accident;
- (2) the steps which can be reasonably taken to reduce the risk of recurrence of such an accident anywhere in Canada;
- (3) the level and adequacy of existing federal law, regulations, rules and standards and of the practices and procedures governing railway safety with respect to this accident and the prevention of future similar accidents involving the handling and carriage of dangerous goods by rail;
- (4) the adequacy of the existing practices, procedures and maintenance standards followed by the railways and the frequency of maintenance to ensure that the standard related to the handling and carriage of dangerous goods by rail are complied with;



- (5) the sufficiency of enforcement of existing railway safety legislation and standards related to the handling and carriage of dangerous goods by rail, including the training, qualification and number of federal inspectors;
- (6) how best investigative and corrective operations in response to an accident involving dangerous goods can be coordinated between various agencies, governmental and private, bearing in mind the existing jurisdictional and constitutional framework;
- (7) the distribution of functions concerning the safety, maintenance and inspection of railway roadbeds, tracks, equipment and signals;
- (8) any matters incidental or relating to any of the matters referred to in paragraphs 1 to 7.

Mrs. Lax also advised that the Inquiry is seeking comments and information from all interested persons and organizations with respect to any of the matters included in the terms of reference. The public is welcome to write to the Commission on their concerns or to attend any of the hearings in Mississauga.

#### The Third Rail

Mr. McLuskey outlined the status of the third rail in the Borough of Etobicoke.

#### Discussion Period

The following persons raised questions and comments:

Alderman Alex Marchetti, Borough of Etobicoke  
Mr. Stan Rusak, Citizen  
Mr. Ed Storus, Ontario Hydro  
Mr. H. L. Mackenzie, 60 Allanbrooke Drive  
Mr. Andrew J. Freyman, 8 Oak Hampton Boulevard  
Ms Gail Dykstra, 31 Belvale Avenue  
Mr. Jim Parkes, 68 Westrose Avenue  
Mr. David Scott, M-TRAC

The following is a summary of the concerns raised:

- (1) Feasibility of the transportation of dangerous materials by pipeline;
- (2) Adequacy of Bill C-18 in preventing another Mississauga disaster; the implementation of Bill C-18, the blending period, and the enforcement of legislation are of concern;
- (3) Relationship between Transport Canada and the transportation and manufacturing companies; proposed Bill may be "watered down" as a result of pressure from affected parties;
- (4) Lack of adherence by rail personnel to safety regulations;



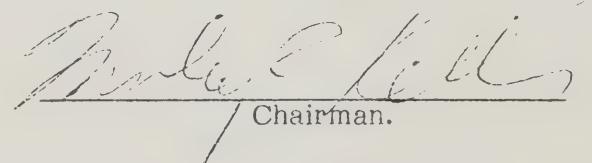
- (5) Particular attention should be paid to level crossing areas where children tend to climb on stopped cars;
- (6) Cars should be inspected by guards prior to departure;
- (7) Work crews should pay more attention to public safety during ballasting operation; there should be a pedestrian guard; there should be a permanent protective deflector or shield;
- (8) Careless attitude of CP;
- (9) Does Bill outline safe speed?
- (10) Extent of penalties in the proposed Bill C-18;
- (11) Concern on the building of the third rail; CP Rail continuing with construction of the third rail even though approval not yet received; third rail primarily for increased freight movement.
- (12) All rail traffic occurring on the CP Rail system takes place on the Galt Subdivision in Metropolitan Toronto;
- (13) The increase in the north/south traffic to and from the United States (across the border);
- (14) The safety factors concerning trains that are "Run-Through" which exchange crews and receive reduced inspection time;
- (15) The increase in traffic and operation in the Windsor area;
- (16) The traffic flow and patterns at the Kipling/Agincourt/Lambton and Parkdale Yards;
- (17) Discussion of pipelines as an alternative for some commodities now carried by rail;
- (18) The effect of Bill C-18 on vehicles both truck and rail originating in the United States with destination in Canada;
- (19) Comments on poor CP response to complaints by individuals/ratepayers living near the tracks;
- (20) Fears were expressed concerning children's safety at level crossings;
- (21) The power of the railway lobbies in Ottawa;



- (22) Concerns about the enforceability of Bill C-18 and the potential creation of a large bureaucracy and how this responsibility would be delegated;  
Mr. T. D. Ellison pointed out that Bill C-18 contained a clause which defined stiff monetary penalties and even prison terms for non-compliance.
- (23) Citizens should take the initiative to identify problem areas in enforcement.
- (24) The transport of molton aluminum on the highways in Metro;
- (25) Press coverage at Grange Commission - who is taking an "advocacy" position?
- (26) Spirited discussion about the politics of "Go-Trains" on the proposed Third Rail.

One person in the audience commented that the \$50M capital cost distributed over the established number of projected riders led to a capital cost subsidy alone of \$10,000.00 per rider without taking into account the additional operating cost per rider. He felt that a cost-benefit analysis was needed by which this level of expenditure was undertaken.

The meeting adjourned at 10:25 o'clock p.m.



Barry C. Ellis  
Chairman.



MINUTES OF PUBLIC MEETINGS ON RAILWAY SAFETY JOINTLY  
SPONSORED BY THE METROPOLITAN TORONTO SUB-COMMITTEE  
RESPECTING THE MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
AND M-TRAC (METRO TORONTO RESIDENTS ACTION COMMITTEE)

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Date: Thursday, May 22, 1980

Time: 8:20 o'clock p.m.

Location: Auditorium  
Oakwood Collegiate Institute  
991 St. Clair Avenue West  
Toronto, Ontario

Present:

Sub-Committee

Mr. Morley Kells  
Mr. Ying Hope

(Mr. Alan Tonks, Controller, Borough of York, and a Member of the Metropolitan Council, was invited by the Sub-Committee to co-chair this meeting on behalf of The Municipality of Metropolitan Toronto.)

M-TRAC

Mr. David Scott  
Mrs. Sheila Oxenham

Resource Persons

Mrs. Joan Lax, Weir and Foulds  
Mr. David Stirling, M.M. Dillon Limited  
Mr. T. D. Ellison, Director, Transport of Dangerous Goods Branch,  
Transport Canada  
Mr. Rem Gaade, Research Officer, Fire Department,  
City of Toronto  
Mr. Ron McCutcheon, Deputy Fire Chief, Borough of York  
Mr. Nicholas W. McGuigan, Coordinator, Noise Control,  
Environmental Engineering Branch, Public Works  
Department, City of Toronto.

Also Present

Mr. Richard Gilbert, Alderman, City of Toronto  
Mr. Oscar Kogan, Alderman, Borough of York  
Mr. Ernest Rovet, on behalf of Rev. Roland de Corneille, M.P.



Ms Pearl Grundland, Ontario Task Force on Provincial Rail Policy  
Ms Susan E. Joel, Metropolitan Planning Department

Opening Remarks by Mr. David Scott

Mr. Scott welcomed the public to the meeting; and briefly outlined the aims of M-TRAC on railway safety; introduced the resource persons present at the meeting; and announced the programme of the evening.

Mr. Alan Tonks

Mr. Tonks briefly outlined the purpose of the meeting and introduced the elected officials who were present.

Presentation of Film - B.L.E.V.E.

The film B.L.E.V.E. was shown.

Mr. T. D. Ellison

Mr. Ellison advised that the legislation, as it stands at present, on the transportation of dangerous goods, is insufficient; briefly outlined what is being proposed in Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa to promote public safety in the transportation of dangerous goods. The proposed legislation, when enacted, will give the Federal Government the authority to enter into agreements with the Provinces in the administration and enforcement of the new regulations.

Mr. David Stirling

A map on land use and population densities along major railway corridors (CP and CN Lines) through Metropolitan Toronto was presented.

A map on main railway freight routes in Central Ontario was also presented.

Mr. Stirling advised that the following are some of the areas of concern which will be included in the brief to be presented to the Mississauga Railway Accident Inquiry on behalf of The Municipality of Metropolitan Toronto:

- (i) potential re-routing of the CP Line;
- (ii) the question of a safe speed for freight trains carrying dangerous goods;
- (iii) maintenance of railway road bed and rolling stock;
- (iv) mixing of cars containing dangerous materials;
- (v) documentation of previous accidents involving dangerous goods.
- (vi) the importance of North/South traffic between Canada and the United States.



Mrs. Joan Lax

Mrs. Lax outlined the following terms of reference of the Mississauga Railway Accident Inquiry:

- (1) the contributing factors and causes of the derailment at Mississauga, Ontario, on November 10, 1979, and the subsequent accident;
- (2) the steps which can be reasonably taken to reduce the risk of recurrence of such an accident anywhere in Canada;
- (3) the level and adequacy of existing federal law, regulations, rules and standards and of the practices and procedures governing railway safety with respect to this accident and the prevention of future similar accidents involving the handling and carriage of dangerous goods by rail;
- (4) the adequacy of the existing practices, procedures and maintenance standards followed by the railways and the frequency of maintenance to ensure that the standard related to the handling and carriage of dangerous goods by rail are complied with;
- (5) the sufficiency of enforcement of existing railway safety legislation and standards related to the handling and carriage of dangerous goods by rail, including the training, qualification and number of federal inspectors;
- (6) how best investigative and corrective operations in response to an accident involving dangerous goods can be coordinated between various agencies, governmental and private, bearing in mind the existing jurisdictional and constitutional framework;
- (7) the distribution of functions concerning the safety, maintenance and inspection of railway roadbeds, tracks, equipment and signals;
- (8) any matters incidental or relating to any of the matters referred to in paragraphs 1 to 7.

Mrs. Lax also advised that the Inquiry is seeking comments and information from all interested persons and organizations with respect to any of the matters included in the terms of reference. The public is welcome to write to the Commission on their concerns or to attend any of the hearings in Mississauga.

Intermission

A brief intermission followed.



Discussion Period

The following persons raised questions and comments:

Alderman Oscar Kogan, Borough of York  
Mr. R. Dexter Stewart, 55-57 Hendrick Avenue  
Mr. Dale Ritch, 121 Church Street  
Mr. Douglas Scoffeld, 921 Palmerston Avenue  
Mr. David Scott, M-TRAC

The following is a summary of the concerns raised:

- (1) Re-routing of CP Line to the north. Can Bill C-18 ensure this? Can Bill incorporate time limits of relocation? What about the provision of funds? Any other alternatives?
- (2) CPR should pay for the cost of relocation;
- (3) Feasibility of the transportation of propane by pipeline;
- (4) Other forms of transportation to move dangerous substances should be explored.

(In reply to the foregoing concerns, Mr. Ellison advised that Bill C-18 will not directly force the relocation of any railway tracks or any industrial activities but might set safety distance standards which can only be achieved by relocating the existing railway tracks or activities.

It would help if individual municipalities become active in advocating the relocation of tracks. Cost of relocation will be a problem.

There is some speculation that some new technology may make truck transport safer.)

(Alderman Ying Hope expressed the opinion that there are short-term, intermediate and long-term solutions to the problem. There is a need to approach these solutions on a political activated basis. He believed that it was important for the CPR track to be relocated to the north; and this should be brought to the attention of the Provincial and Federal governments. The value of the land after removal of the railway track should be considered as a benefit.

Mr. Hope also advised that it was his intention to introduce the following motion at the meeting of the Federation of Canadian Municipalities in Halifax, and asked whether the public will support same:

"That the CTC, or the Standing Committee of the Legislature involved in the question of public safety in the transportation of dangerous goods, study and make arrangements for the relocation of main railway lines away from densely populated areas."



The public in attendance supported this proposed motion.)

- (5) Control of noise and vibration created by travelling trains;
- (6) (a) Response time of rescue forces in the event of a disaster;  
(b) How long does it take to evacuate 20,000 people in a square mile?

Response to question (a)

Response time is 2 to 3 minutes, considering that the BLEVE may occur in 8 to 9 minutes and given the constraints of the geography of Metropolitan Toronto.

Response to question (b)

20,000 people could not be evacuated in 8 to 9 minutes. Potentially, 4,000 - 5,000 people could be killed given the most disastrous kind of situation that may occur.

- (7) If CP main track is moved to the north, there will still be the problem of transporting dangerous goods from the new track to industrial spots in the south;
- (8) Best solution is reduction of train speed;
- (9) What can the Federal government do? Railway companies are more powerful than the government;
- (10) Setting up of a public committee to regulate the CPR;
- (11) Does Bill C-18 bring the role of CTC, its make up, its jurisdiction, under scrutiny?

(In reply to this question, Mr. Ellison advised that under the proposed legislation, the Minister of Transport will be more directly accountable politically than the CTC. Mr. Ellison went on to say that derailments occur principally under two conditions: very high speed and very low speed.

Very high speed derailments tend to be caused by "hot boxes", seized axles, and the sway of the train; very low speed derailments tend to occur during shunting in or near a switching yard.)

- (12) Most people don't realize that 'Train 54' that derailed in Mississauga was on its way through downtown Toronto to the Agincourt Marshalling Yard in Scarborough;

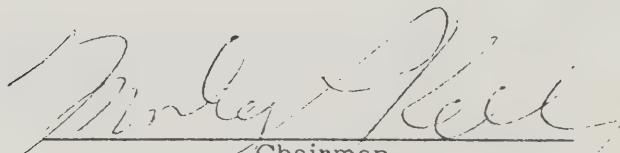


Thursday, May 22, 1980.

- (13) Concerns were expressed about the potential spill of PCB's in an area in which Metropolitan Toronto water system would be contaminated by them;
- (14) The Railway Relocation Act with the budget of \$150M over five years had already exhausted these funds with the implication that no existing funds are available for further re-routing in the Metro area.

Several members of the audience suggested ways that M-TRAC might increase public participation and public awareness in the railway related issues discussed during the course of the evening.

The meeting adjourned at 10:30 o'clock p.m.

  
Shirley Keel  
Chairman.



MINUTES OF PUBLIC MEETINGS ON RAILWAY SAFETY JOINTLY  
SPONSORED BY THE METROPOLITAN TORONTO SUB-COMMITTEE  
RESPECTING THE MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
AND M-TRAC (METRO TORONTO RESIDENTS ACTION COMMITTEE)

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Date: Thursday, May 29, 1980

Time: 8:20 o'clock p.m.

Location: Gymnasium  
Anson S. Taylor Junior Public School  
20 Placentia Boulevard  
Agincourt, Ontario

Present:

Sub-Committee

Mr. Morley Kells

(Mr. Frank Faubert, Controller, Borough of Scarborough, and a Member of the Metropolitan Council, was invited by the Sub-Committee to co-chair this meeting on behalf of The Municipality of Metropolitan Toronto.)

M-TRAC

Mr. Harry Behrend  
Mr. David Scott  
Mrs. Sheila Oxenham

Resource Persons

Mr. Jack Weinberg, on behalf of Mrs. Joan Lax, Weir and Foulds  
Mr. David Stirling, M.M. Dillon Limited  
Miss Marjorie K. Stalikovich, Senior Advisor, Risk Analysis,  
Transport of Dangerous Goods Branch, Transport Canada  
Mr. W. E. Wretham, Fire Chief, Borough of Scarborough  
Mr. John Manuel, Supervisor, Noise Pollution Control Section,  
Pollution Control Branch, Ministry of the Environment,  
Province of Ontario

Also Present

Mr. Joe DeKort, Alderman, Borough of Scarborough  
Mr. Cecil Heal, representing the Honourable Tom Wells, Minister of  
Intergovernmental Affairs, Province of Ontario



Ms Jackie Davies, representing Mr. David Weatherhead, M.P. for  
Scarborough West  
Mr. Robert Schmidt, Ontario Task Force on Provincial Rail Policy  
Mr. Angus Murray, Metropolitan Planning Department

Opening Remarks by Mr. Andy Mutch

Mr. Andy Mutch, representing the Middlefield Community Association, welcomed the public to the meeting.

Mr. Harry Behrend

Mr. Behrend gave an overview of the concerns of the citizens of Metropolitan Toronto on railway safety; briefly explained the objectives of M-TRAC; and outlined the on-going work of M-TRAC in the following areas:

- (i) representation of public interest at the Mississauga Railway Accident Inquiry, in conjunction with the Sub-Committee established by The Municipality of Metropolitan Toronto in this respect;
- (ii) requesting the City of Toronto to conduct a noise and vibration study in Central Toronto;
- (iii) establishing liaison with the Ontario Task Force on Provincial Rail Policy with a view to presenting its comments on railway safety and railway operations to the Task Force;
- (iv) reviewing and commenting, where necessary, Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa and which sets standards for and regulate the transportation of dangerous goods.

Mr. Behrend further introduced the resource persons who were present and briefly outlined the programme of the evening.

Mr. Frank Faubert

Mr. Faubert briefly outlined the purpose of the public meeting; introduced the elected officials present at the meeting and congratulated members of M-TRAC for their efforts, as volunteers, in advocating railway safety. He thanked all those who had assisted in arranging the series of public meetings on railway safety.



Mr. Faubert also advised that the Borough of Scarborough had set up a railway liaison committee and requested Mr. DeKort to give an update as to the work of the committee to date.

Mr. Faubert described the antiquated Railway Relocation Act that governed the transport of goods and commodities without adequate provision for penalties, insurance or compliance. He expressed further concern about the transfer of hazardous materials in and around the Agincourt Marshalling Yard in Scarborough.

Mr. Joe DeKort

Mr. DeKort advised that the Scarborough Council had established a Council Railway Liaison Committee, comprising three members, i.e. Mayor Gus Harris, Controller Frank Faubert and Alderman Joe DeKort as Chairman. Reference was made to the first informal meeting of the Committee with C.P. Rail respecting the transfer of hazardous materials in Scarborough, especially in the Agincourt Marshalling Yard. At the said meeting, Mr. R. S. Allison, Vice-President of C.P. Rail advised:

- (a) that the Mississauga Inquiry will probably result in a number of recommendations including compulsory use of:
  - (1) the expanded use of Hot Box Detectors on main lines;
  - (2) the use of top and bottom shelf couplers to prevent unhooking at the time of a derailment;
  - (3) the end of tank cars to be equipped with deflector shields; and
  - (4) utilization of roller bearings in all new equipment;
- (b) that propane cars are not humped in the Agincourt Marshalling Yard; a flat switch method is used;
- (c) that the Agincourt Marshalling Yard has its own Fire Department and the staff at the Yard is informed at all times of the contents of cars and order of cars which make up any train.

Mr. DeKort further advised that the following were agreed upon at the said meeting:

- (1) C.P. Rail staff member, Mr. Gerry Lepage, will meet with Fire Chief Bill Wretham to review the procedures utilized by C.P. Rail at its Agincourt Marshalling Yard;
- (2) C.P. Rail will provide a tour of its Agincourt facilities to the Committee members and the Fire Chief;



- (3) The Committee, Fire Chief and C.P. Rail will develop a plan to be used in case of an emergency; and
- (4) Further exploratory meetings will be held upon mutual agreement.

Presentation of Film - B.L.E.V.E.

The film B.L.E.V.E. was shown.

Miss Marjorie K. Staikovich

Miss Staikovich briefly outlined what is being proposed in Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa to promote public safety in the transportation of dangerous goods. It is expected that the Bill will receive final approval in the summer of 1980.

Mr. David Stirling

A map on land use and population densities along major railway corridors (CP and CN Lines) through Metropolitan Toronto was presented.

A map on main railway freight routes in Central Ontario was also presented.

Mr. Stirling advised that the following are some of the areas of concern which will be included in the brief to be presented to the Mississauga Railway Accident Inquiry on behalf of The Municipality of Metropolitan Toronto:

- (i) potential re-routing of the CP Line;
- (ii) the question of a safe speed for freight trains carrying dangerous goods;
- (iii) maintenance of railway roadbed and rolling stock;
- (iv) prohibition of mixing cars containing dangerous materials;
- (v) documentation of previous accidents involving dangerous goods;
- (vi) review of the relationship between the CTC and the Federal Government.

Mr. John Manuel

Mr. Manuel briefly updated the public on the noise modelling study undertaken for the Agincourt Marshalling Yard.



This was an in-depth study of all noises in a railway yard, similar to the Agincourt Marshalling Yard, which was funded by Transport Canada, with the Ministry of the Environment, Province of Ontario, providing the technical guidance. The purpose of the study was to develop good land use planning. The Provincial Government has no jurisdiction in forcing the railway companies to lower the noise levels. Under the study, staff teams were sent to the neighbouring community to find out what noise levels people had been experiencing and the general response of the people concerned. The study has been completed and the findings thereof will be published sometime in November, 1980. The study will indicate noise levels at any distances away from the railway yard and how people react to the noises. The information gathered in the study will assist municipalities to assess where residential construction at sites near the railway yards can be permitted.

Mr. Manuel noted that in 1977, a Symposium was held concerning railway noise. Large railway companies and A.A.R. were present. There was no public participation in this Symposium which led to a one-year study of noise at and around the Agincourt Marshalling Yard which has produced a good deal of road data about the noise which provides the basis for the definition of noise contours of the Agincourt Marshalling Yard.

Concerning construction of new housing alongside existing railway lines, Mr. Manuel noted that the railways had asked for the prohibition of barrier block alongside the tracks and instead wanted buffer zones established. This related to the "Barrier Berms" that are 14 feet high which have been put in in various places of Canada.

He noted that with regards to vibrations that people and structures tolerated them.

He added that the Ministry of Housing, Province of Ontario, has authorized a study by external consultants towards making recommendations for a railway noise policy for land use planning. It is expected that a report on this will be available in six months.

Mr. Jack Weinberg

Mr. Weinberg outlined the following terms of reference of the Mississauga Railway Accident Inquiry:

- (1) the contributing factors and causes of the derailment at Mississauga, Ontario, on November 10, 1979, and the subsequent accident;
- (2) the steps which can be reasonably taken to reduce the risk of recurrence of such an accident anywhere in Canada;



- (3) the level and adequacy of existing federal law, regulations, rules and standards and of the practices and procedures governing railway safety with respect to this accident and the prevention of future similar accidents involving the handling and carriage of dangerous goods by rail;
- (4) the adequacy of the existing practices, procedures and maintenance standards followed by the railways and the frequency of maintenance to ensure that the standard related to the handling and carriage of dangerous goods by rail are complied with;
- (5) the sufficiency of enforcement of existing railway safety legislation and standards related to the handling and carriage of dangerous goods by rail, including the training, qualification and number of federal inspectors;
- (6) how best investigative and corrective operations in response to an accident involving dangerous goods can be coordinated between various agencies, governmental and private, bearing in mind the existing jurisdictional and constitutional framework;
- (7) the distribution of functions concerning the safety, maintenance and inspection of railway roadbeds, tracks, equipment and signals;
- (8) any matters incidental or relating to any of the matters referred to in paragraphs 1 to 7.

Mr. Weinberg also advised that the Inquiry is seeking comments and information from all interested persons and organizations with respect to any of the matters included in the terms of reference. The public is welcome to write to the Commission on their concerns or to attend any of the hearings in Mississauga.

Mr. Weinberg further advised that the final date for submission of briefs to the Inquiry is June 15, 1980.

Intermission

A brief intermission followed.



Mr. W. E. Wretham, Fire Chief, Borough of Scarborough

Mr. Wretham advised that the Fire Chiefs of Metropolitan Toronto and their staff meet regularly on matters of mutual concern; and that there is coordination and excellent cooperation among the Fire Departments. Should the need arise, assistance from another Fire Department is readily available.

Mr. Wretham further advised that the Agincourt Marshalling Yard has its own Fire Department and that the Yard relies on on-site water. He expressed concerns about the severe limitations of this water supply in the event of any type of serious fire condition in the yard regardless of its cause.

He expressed concerns about explosives and dangerous goods which are stored near the tracks throughout Scarborough. These dangerous goods include pesticides and radioactive substances at various site locations.

He expressed concerns that the Fire Department did not know when any of these goods were in transit either to and from the Agincourt Marshalling Yard or to and from individual sites along the tracks. He noted that CP Rail did not advise the Fire Department of what was in the Agincourt Marshalling Yard at any given time.

Discussion Period

The following persons raised questions and comments:

Mr. Cliff Hayes, 44 Rotary Drive  
Mr. K. A. Cuff, 4 Crakett's Avenue  
Mr. D. M. Choptiany, 98 Rooksnest Trail  
Mr. C. Paul, 1416 Bayview Avenue  
Mrs. Susan M. Hunt, 11 Hayward Crescent  
Mrs. Donelda Warren, 110 Ridgewood Road  
Ms Barbara Jacksie, 37 Bernadine Street

The following is a summary of the concerns raised:

- (1) Can Scarborough cope with an accident similar to the Mississauga type accident?
- (2) Adequacy of municipal water in areas adjacent to railway lines;
- (3) Fire Department should be aware of what chemicals are in a railway yard at any point in time;
- (4) Advance notice to the Fire Department on the transport of dangerous goods;
- (5) Mixing of cars containing dangerous materials must not be allowed;
- (6) Control of noise and vibration from the Agincourt Marshalling Yard;

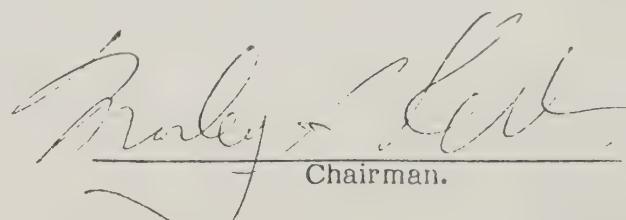


- (7) Community association not informed of noise modelling study;
- (8) Colour coordination for railway cars so that dangerous materials can be identified by Fire crews easily;
- (9) Present legislation inadequate;
- (10) If CP Rail is relocated to the north, there must be assurance that residential areas will not be built close to the track;
- (11) Practice of companies under Federal jurisdiction refusing to accede to Provincial and Municipal concerns;
- (12) Improved labelling of dangerous materials in railway cars;
- (13) Marshalling Yard should not be used as storage for hazardous materials;
- (14) Need for technical studies of the location and operation of yards and lines.
- (15) Concern was expressed that automatic controls in the Agincourt Marshalling Yard were inadequately maintained;
- (16) Some members of the audience were surprised to learn that the Agincourt Marshalling Yard was 72 tracks wide;
- (17) Concern was expressed about the medium and long term storage of dangerous goods in the Agincourt Marshalling Yard while awaiting transfer to their ultimate destinations;
- (18) Concern was expressed that the public in Scarborough was not aware of the events that occurred in Mississauga and that the same "Train 54" was enroute to the Agincourt Marshalling Yard in Scarborough.

Mr. David Scott of M-TRAC commented that Justice Grange of the Mississauga Inquiry Commission has expressed concerns about the level of public involvement in his Inquiry. Justice Grange also expressed his concerns that emphasis has been placed on the liability aspect of the derailment and has not yet dealt with the safety aspect of the derailment. He further noted that neither the public nor the emergency response forces have been a part of the decision making process affecting rail legislation and enforcement. He hoped that the Mississauga Inquiry might lead to some recommendations for Metropolitan Toronto.

The confidentiality of the CTC reports was also discussed.

The meeting adjourned at 10:50 o'clock p.m.

  
\_\_\_\_\_  
Chairman.



MINUTES OF PUBLIC MEETING ON RAILWAY SAFETY JOINTLY  
SPONSORED BY THE METROPOLITAN TORONTO SUB-COMMITTEE  
RESPECTING THE MISSISSAUGA RAILWAY ACCIDENT INQUIRY  
AND M-TRAC (METRO TORONTO RESIDENTS ACTION COMMITTEE)

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Date: Wednesday, June 4, 1980

Time: 8:17 o'clock p.m.

Location: Kindergarten Room  
Bennington Heights School  
76 Bennington Heights Drive  
Toronto, Ontario

Present:

Sub-Committee

(Mr. Alan Redway, Q.C., Mayor, Borough of East York, and a Member of the Metropolitan Council, was invited by the Sub-Committee to co-chair this meeting on behalf of The Municipality of Metropolitan Toronto.)

M-TRAC

Mr. Harry Behrend  
Mr. David Scott  
Mrs. Sheila Oxenham

Resource Persons

Mr. David Stirling  
Mr. T. D. Ellison, Director, Transport of Dangerous Goods Branch,  
Transport Canada  
Mr. George A. Kerfoot, Fire Chief, Borough of East York  
Mr. Jos. H. Gibson, Fire Chief, Borough of North York

Also Present:

Alderman Gordon Crann, Borough of East York  
Alderman Herb McGroarty, Borough of East York  
Alderman Peter E. Oyler, Borough of East York  
Alderman Norm Crone, Borough of East York  
Mr. Michael Wilson, M. P.  
Mr. Bill Armstrong, representing the Honourable John Roberts, Minister of  
of the Environment, Science and Technology, Canada  
Mr. Jorge de Mendonca, representing Mr. David Collenette, M.P.  
Ms Jan Innes, representing Mr. David Smith, M.P.  
Mr. Calvin Johansson, representing Mr. Bob Rae, M.P.



Representative of Mr. John Bosley, M.P.  
Mr. John McFadden, representing Mr. David Crombie  
Ms Margaret Campbell, M.P.P.  
Ms Patricia Game, representing the Honourable Dennis Timbrell,  
Minister of Health, Province of Ontario  
Ms Shirley Ormston, representing the Honourable Dr. Robert Elgie,  
Minister of Labour, Province of Ontario  
Mr. Dennis Callan, Ontario Task Force on Provincial Rail Policy  
Mr. Matt Rea, Metropolitan Planning Department

Opening Remarks by Mr. Alan Redway

Mr. Redway welcomed the public to the meeting; introduced the elected officials and/or their representatives who were present; and briefly outlined the purpose of the meeting.

Mr. Harry Behrend

Mr. Behrend gave an overview of the concerns of the citizens of Metropolitan Toronto on railway safety; briefly explained the objectives of M-TRAC; and outlined the on-going work of M-TRAC in the following areas:

- (i) representation of public interest at the Mississauga Railway Accident Inquiry, in conjunction with the Sub-Committee established by The Municipality of Metropolitan Toronto in this respect;
- (ii) requesting the City of Toronto to conduct a noise and vibration study in Central Toronto;
- (iii) establishing liaison with the Ontario Task Force on Provincial Rail Policy with a view to presenting its comments on railway safety and railway operations to the Task Force;
- (iv) reviewing and commenting, where necessary, Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa and which sets standards for and regulate the transportation of dangerous goods.

Mr. Behrend further introduced the resource persons who were present and briefly outlined the programme of the evening.

Presentation of Film - B.L.E.V.E.

The film B.L.E.V.E. was shown.



Mr. T. D. Ellison

Mr. Ellison advised that the legislation, as it stands at present, on the transportation of dangerous goods, is insufficient; briefly outlined what is being proposed in Bill C-18 which is presently before the Standing Committee of the House of Commons in Ottawa to promote public safety in the transportation of dangerous goods. The proposed legislation, when enacted, will give the Federal Government the authority to enter into agreements with the Provinces in the administration and enforcement of the new regulations.

Mr. Ellison noted that a public awareness programme was projected under Bill C-18 and that community support was envisioned in the identification of dangerous goods.

Mr. David Stirling

A map on land use and population densities along major railway corridors (CP and CN Lines) through Metropolitan Toronto was presented.

A map on main railway freight routes in Central Ontario was also presented.

Mr. Stirling advised that the following are some of the important issues that would be included in the brief for consideration by the Mississauga Railway Accident Inquiry:

- (i) potential re-routing of the CP Line;
- (ii) the question of a safe speed for freight trains carrying dangerous goods;
- (iii) maintenance of railway roadbed and rolling stock;
- (iv) prohibition of mixing cars containing dangerous materials;
- (v) review of the relationship between the CTC and the Federal Government;
- (vi) improvement to placards of railway cars which will assist in identifying the contents of the cars.



Mr. Harry Behrend

Mr. Behrend advised that Mrs. Joan Lax is unable to attend this meeting as she has to prepare for cross examination at the next day's hearing of the Mississauga Railway Accident Inquiry where representatives of CTC will be giving evidence.

Mr. Behrend commented on the role and make-up of the CTC and the fact that no railway accident reports are available to the public.

Intermission

A brief intermission followed.

Discussion Period

The following persons raised questions and comments:

Mr. John Walker, 24 Bessborough Drive  
Alderman Norm Crone, Borough of East York  
Mr. Calvin Johnasson, 195 Parkmount Road  
Mr. F. S. Carrie, 183 Bayview Heights Drive  
Mr. George Trewin, citizen  
Mr. R. M. Litch, 14 Moorehill Drive  
Mr. P. C. Thurston, 38 Randolph Road  
Mr. Michael Wilson, M.P., House of Commons, Ottawa  
Mr. David Scott, M-TRAC

The following is a summary of the concerns raised:

- (1) What changes have been made to the Bureau of Explosives regulations respecting transportation of dangerous materials?  
(Mr. Ellison replied that very few changes have been made to these regulations.)
- (2) Does one tank car carry different kinds of commodities at different times?  
(Mr. Ellison commented that 80 to 90 per cent. of all tank cars are in "dedicated service", some 10 per cent. of which mix propane and anhydrous ammonia at different times of the year. The remaining 10 to 20 per cent. interchange various substances.)
- (3) Use of different colours or shapes for rail cars carrying different dangerous materials;



(4) Identification as to how to treat what is inside a rail car in case of an accident;

(Mr. Ellison responded that there was a strong tradition of using 10-inch cardboard placards. He noted that tank cars are refitted every five years and that new identification and coding procedures ought to be placed on these cars at this time to allow night-time visibility at a distance of 400 feet. He added that there were some 800 categories of dangerous materials commonly transported by rail; some 30,000 other hazardous materials hauled on an irregular basis; and up to 300,000 different kinds of hazardous materials that may be hauled in any given year on a spot basis.)

(The Fire Chiefs responded that the potential of a major catastrophe in Metropolitan Toronto was great and that it was only a matter of time for such accident (Mississauga happening) to occur in Metropolitan Toronto. They are prepared to deal with this kind of accident in the future but they won't be able to stop it from happening. They voiced two concerns:

- (1) The first concerning the mixture of different chemicals being hauled on the same train as being potentially more lethal than anything discussed thus far; and
- (2) Secondly, the problem existing on Highway 401 and the Don Valley Parkway concerning water supply in the event of tank truck or railway spills on either of these arteries of the CN and CP tracks.)

(5) There are no Federal or Provincial regulations with respect to speed limits for trains in Metropolitan Toronto. The rail companies set speed limits that are enforced by their own security forces;

(6) Make up of CTC. How many are involved in railway safety and how many looking after dangerous goods?

(Mr. Ellison responded that 100 officials of Transport Canada are involved in railway safety - 74 in the regions and 26 in Ottawa. Only 6 are involved in the regulation of dangerous goods - 3 in the regions and 3 in Ottawa.)

(7) Possibility of CPR re-routing trains away from densely populated areas;

(8) In factories and warehouses, regulations pertaining to the storage of dangerous materials are stringently enforced by local Fire Departments. Why can't similar enforcement be undertaken for goods being moved by rail through Metro Toronto? Fire Department not notified as to what is being transported;

(The Fire Chiefs responded that a significant fire hazard existed which had not yet been mentioned in the meeting concerning cars sitting on sidings. They expressed further concern about the use of chlorine by numerous private companies in Scarborough.)



(9) Does trucking industry have a better record of transporting goods? Vast majority of dangerous goods are moved by rail;

(Mr. Ellison responded that one million tons of chlorine are transported each year in Canada; some 5 per cent. by truck and 95 per cent. by rail. In addition, 2-1/2 million tons of sulphuric acid are transported each year in Canada. This constitutes some 11,000 tons per week across Canada.)

(10) There is still need to transport some dangerous goods to serve industries in Metropolitan Toronto. What is the proportion of dangerous goods that are being shipped across Metropolitan Toronto which are not destined to and from Metro?

The issue of "back-tracking" was discussed.

(Mr. Ellison described the fact that a lot of unnecessary transport of dangerous goods to and from Metropolitan Toronto takes place. For example, a Montreal producer of chlorine ships this product to a customer in Toronto and a Toronto producer of chlorine would ship this product to a customer in Montreal. The existence of monopoly areas in the sale of some dangerous goods can create an extremely high risk situation for certain commodities at certain times.)

(11) Use of pipeline for transport of various dangerous substances;

(12) More maintenance and safety inspection programs should be taken by railway companies. Railway companies are negligent of their duty;

(13) Dangerous materials are also being transported on the Don Valley Parkway and Highway 401;

(14) Public and emergency response groups have traditionally been left out of decision process concerning rail regulations;

(15) Need more public awareness. Concerns should be made known to elected officials of all government levels.

The meeting adjourned at 10:30 o'clock p.m.



Pauline Kell  
Chairman.







SUMMARY OF COMMENTS RECEIVED VIA COMMENT CARDS FROM PUBLIC MEETINGSAND RETURNED NOTICES

Over a 30 day period from May 14, 1980 through June 13, 1980, a total of 90 comment cards were received following our five Public Meetings. During this same period, 40 additional comments were received in response to the distribution of some 60,000 notices announcing these Public Meetings to individuals living within 2,000 feet of the CP mainline.

108 specific areas of concern were registered on the 90 comment cards; 64 areas were registered on the 40 mailed in coupons. In sum, 130 individuals or households registered 172 areas of concern. Many of these areas overlapped.

125 respondents or 96% supported M-TRAC's activities. 20 or 15% strongly supported them. 5 respondents or 4%, all mail-in coupons, disagreed with M-TRAC's activities and concerns. 2 of these responses were articulate; 3 were quite disorganized in their comments.

Respondants were most concerned with SAFETY. 98 respondents or 75% expressed concerns about safety, especially about what was perceived as high or excess train SPEED through urban areas that might lead to a derailment, particularly of hazardous or dangerous materials. Also of significant concern was what were perceived to be serious shortcomings in the MAINTAINANCE of track, roadbed, rolling stock, etc. that might also lead to a derailment. Further concerns were expressed about the capacity and organization of EMERGENCY RESPONSE FORCES to deal with a center city catastrophe; about the STORAGE OF HAZARDOUS MATERIALS NEAR MAINLINE TRACKS in the case of a derailment; and about the IDENTIFICATION and MIXING of railway cars carrying hazardous or dangerous materials.

34 respondents or 26% expressed concerns about TRANSPORTATION PLANNING as it related to SAFETY. Most respondents suggested RE-ROUTING, minimally of HAZARDOUS MATERIALS, as a means of increasing safety and of at least partially reducing some of the adverse side effects of railway operations along mainlines and in or near marshalling yards.

17 respondents or 13% expressed concerns about ENVIRONMENTAL PROTECTION, particularly in the areas of NOISE and VIBRATION.

21 respondents or 16% expressed strong concerns about the need for PUBLIC AWARENESS and PUBLIC PARTICIPATION programs such as those being undertaken by M-TRAC.

9 respondents or 7% expressed strong concerns about the undue SECURITY about railway operations as they effect the PUBLIC, and expressed concern about the lack of PUBLIC DISCLOSURE about railway operations; INSENSITIVITY about complaints directed to the C.T.C. and the railway companies; and the "stonewalling" response to individual and ratepayer group initiatives on the part of the C.T.C. and the railway companies.







## VAUGHAN, WILLMS

BARRISTERS &amp; SOLICITORS

73 RICHMOND STREET WEST, SUITE 200  
TORONTO, ONTARIO M5H 1Z4MICHAEL B. VAUGHAN  
JOHN R. WILLMS  
DONNA S.K. SHIER  
HARRY POCH

416 863 0711

June 30, 1980

Mr. David Scott, Secretary  
M-TRAC  
15 Warren Road  
Toronto, Ontario  
M4V 2R4

Dear David:

Re: M-TRAC Submission to MRAI (Grange Inquiry)

In response to your request for a listing of some areas of concern which I feel Mr. Justice Grange should consider, I have drawn up the following list. Please note that this is not a comprehensive list and in compiling this list, I have attempted to highlight issues and points not raised in other briefs which you have provided to me.

1. Problems relating to compensation in damages must be addressed.
2. Problems relating to quantification of adequate compensation for indirect and direct losses must be addressed.
3. Problems relating to distribution and awarding of damages (as per class action suits) must be canvassed.
4. Compensation availability for situations where wilful or negligent acts give rise to environmental contamination.
5. Compensation for the "direct" and "indirect" results of a pollutant spill, the clean-up of the pollutant or neglect or default in carrying out a statutory duty.
6. A compensation fund under federal jurisdiction be set up with mandatory bonding procedures applicable to all carriers.

.../2



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7. Locus standi; the right to sue and class actions should be defined.

8. Shifting the burden of proof from the plaintiff to the defendant after a prima facie case has been made out that the defendant is the likely source of "the problem" and that the plaintiff has suffered harm from an environmentally related cause.

9. That civil remedies be prescribed by statute so that the federal, provincial and municipal governments as well as private individuals can be awarded damages relative to the costs and expenses of clean-up, policing and civil defence.

10. Statutory responsibility for clean-up and associated costs related to a spill which only comes to light after the operator or land owner is no longer in care and control or not otherwise responsible (see: The Director, Ministry of the Environment v. Mississauga, (1979), 9 CELR 24 (County Court)).

11. Funding be provided to any plaintiff, applicant or intervenor in any court, administrative tribunal proceeding or inquiry relating to a spill; on the plaintiff showing that he or she has prima facie suffered harm from an environmental cause related to the subject matter of the case, proceeding or inquiry.

12. Problems relating to proof of fault should be dealt with.

13. Absolute liability, as set forth in R. v. Sault Ste. Marie, (1978), 7 CELR 53 (S.C.C.) should apply to railway spills; but, in the alternative, the doctrine of strict liability with the defence of due diligence should operate if it can only be shown that railway transport legislation is public welfare legislation and not transport welfare legislation.

14. Defining "spills", as per The Environmental Protection Act, 1979, S.O., c.91 ; but also defining abnormal occurrences so that the spectre of the defence of "normal occurrence" can not be raised.

15. Notice of all spills (detailed) and immediate disclosure must be mandatory and at least as comprehensive as under The Environment Protection Amendment Act, 1979, S.O., c.91.

16. "Hazardous wastes" and "liquid industrial wastes" as classified by the Ministry of the Environment (Ontario) Waste Management Branch be included in any definition of "dangerous goods" and any scheduled class in Bill C-18 (Canada-1980); and that reference be made to the definition



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of hazardous wastes given by the Task Force on Hazardous Waste Definition, 1978.

17. A comprehensive way-bill system be put into effect with computerized checking.

18. Shippers and handlers be caused to provide contingency plans pre-cleared before transport commences.

19. Categories of harm or possible adverse effects be at least as wide as prescribed in The Environmental Protection Amendment Act, 1979, S.O., c.91, and including at least losses associated with the normal use of property and interference with the normal conduct of business, even if caused only by government order or directive.

20. The duty of the carrier, operator and owner to do everything practicable to prevent, eliminate and ameliorate adverse effects and to restore the natural environment without reference to the financial ability of the alleged polluter or person(s) found culpable.

21. That there be a specific and mandatory duty to regulate in Bill C-18.

22. That there be a general duty of care prescribed in Bill C-18 and that there be offences for using a general lack of care and/or not using the best available technology in packaging and transportation.

23. The duty of the polluter to restore the environment to its prior natural condition (see: The Environmental Protection Amendment Act, 1979, S.O., c.91).

24. The regulatory making system provide adequate notice and public hearing procedures in matters coming within the purview of Bill C-18.

25. Enforcement provisions under Bill C-18 should be immediate and without the concurrence of the provinces; a federal enforcement agency (autonomous of the C.T.C.) be set up with provincial representation.



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I trust that these points may be of some assistance in your presentation.

Yours very truly,

VAUGHAN, WILLMS

Per:

A handwritten signature in black ink, appearing to read "HARRY POCH". The signature is fluid and cursive, with a large, stylized 'H' at the beginning.

Harry Poch

HP:km







# M. M. DILLON LIMITED

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OUR FILE: 8757-01

YOUR FILE:

20 June 1980

M-TRAC  
(Metro Toronto Residents  
Action Committee)  
15 Warren Road  
Toronto, Ontario  
M4V 2R4

## Railway Safety Pre- Implementation

Dear Sirs:

As a follow up to the recent project that Dillon has undertaken regarding Railway Safety in Metropolitan Toronto, a paper outlining issues of immediate concern has been prepared. These issues of concern could be treated as individual projects; however, they are combined in the attached paper in order to bring to focus the areas that deserve further attention.

Dillon does appreciate the assistance provided by M-TRAC in the preparation of the brief on Railway Safety to be presented at the Mississauga Railway Accident Inquiry. It is anticipated that this paper will provide you with a better understanding of the work required in order that some of the recommendations in the Railway Safety Brief can be implemented.

We also trust that the attached information will assist you in developing your briefs to the Provincial and Federal Governments.

...continued



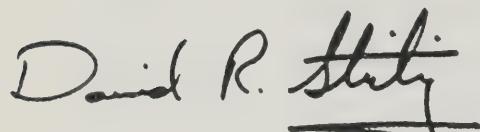


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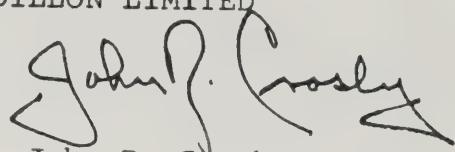
This paper does by no means provide the details necessary to complete the necessary investigations but it will certainly act as a guideline for the type of work programs that are necessary to supply the answers that are needed.

Yours truly,

M. M. DILLON LIMITED



David R. Stirling, P.Eng.  
Head, Rail Services



John R. Crosby, P.Eng.  
Director of Transportation  
Systems

DRS/jm  
Encl.



RAILWAY SAFETY ISSUES  
PRE-IMPLEMENTATION EVALUATION

INTRODUCTION

The Mississauga railway accident on 10 November 1979 brought to the attention of the citizens of Metropolitan Toronto the problems of handling dangerous commodities on trains. In order to implement some of the recommendations in the brief presented to the Grange Inquiry which has been investigating the Mississauga accident, the following paper has been prepared.

This material of M. M. Dillon Limited is intended to show how various issues of railway safety can be investigated in detail so that solutions can be found to each issue.

SCOPE

The issues that are discussed in this submission are specific to the Metropolitan Toronto area but the method of approaching each issue could be used in resolving similar concerns in other cities or towns.

This submission therefore focuses in on four (4) issues of immediate concern; these are:

- Rerouting of Trains Carrying Dangerous Goods
- Land Use Controls on Properties Abutting Railway Lands
- Safe Train Operating Speeds
- Installation of Train Information at Emergency Control Centres



## REROUTING OF TRAINS CARRYING DANGEROUS GOODS (A)

### Objective:

To estimate the costs and benefits and assess the impacts of rerouting all C.P. train traffic carrying dangerous goods away from populations. There would be a 2 stage rerouting anticipated.

Stage I - to use existing CN lines north of Steeles Avenue.  
Stage II - to use an exclusive CP route through the Parkway Belt West.

### Methodology:

In Stage I, the existing CN operations would have to be reviewed in detail to determine how the CP trains carrying dangerous goods could be diverted onto the CN line. Field investigations would be made of the lands required to make a new rail connection in the east of Toronto near the Agincourt Yard and the several possible areas in the west end where connections could be made.

The study would require input from both CP Rail and CN Rail to ensure that all proposed changes would be compatible with existing and proposed railway operating patterns.

Stage II of this investigation would review in detail the costs and impacts of constructing a new CP Rail line in the Parkway Belt West corridor. This new rail line would be designed to handle all CP through traffic and therefore reduce the noise and vibration problems as well as reduction of risk factor due to through-fast-train traffic passing through densely populated areas.



Stage II of the study would also consider the potential uses for the former CP main line in Metro Toronto; such uses as:

- maintaining a railway switching track
- a road corridor
- for GO traffic
- for LRT (light rail transit)
- as a utility corridor.

#### REROUTING OF TRAINS CARRYING DANGEROUS GOODS (B)

##### Implications of Rerouting with Respect to the Railway Relocation and Crossing Act

The existing Railway Relocation and Crossing Act (RRCA) provides for a Federal relocation grant that does not exceed fifty per cent of the net costs of railway relocation. Therefore no Federal funding is provided for such things as industry relocation or new roadways located outside the study area.

The RRCA also states that the relocation scheme will not impose on any railway company costs or losses greater than benefits, nor confer any benefits and payments greater than the costs incurred by the railway company. In other words the railway company can neither gain nor lose from a relocation. One can expect that the railways would not be expected to lose from any relocation but the present wording of the Act also removes any incentive for the railway company to participate in a relocation scheme because there would be no financial or other incentive to do so.



Thus it is proposed that any railway rerouting scheme for Metropolitan Toronto which qualifies under the RRCA should also include the following:

- 1-1) to prepare a list of items of cost in a rerouting scheme which do not fall under the RRCA
- 1-2) to investigate alternate means of funding these items
- 1-3) to recommend changes to the RRCA to make such means of funding applicable to railway relocation projects
- 2-1) to review those benefits which can be received by the railway companies as a result of rerouting
- 2-2) to determine what net benefits should accrue to the railways as an incentive to partake in relocation schemes
- 2-3) to recommend changes to the RRCA to make such benefits attributable to the railways and not applicable under the Act.



## LAND USE CONTROLS ON PROPERTIES ABUTTING RAILWAY LANDS

### Objective:

To investigate the existing and proposed development plans along the existing CN by-pass route and assess these plans with respect to noise, vibration and safety criteria such that they would provide acceptable land development to occur adjacent to the railway facilities.

### Methodology:

This analysis could be divided into the following major components:

- i) Collection of existing and proposed land uses along proposed rail route.
- ii) Development of acceptable criteria for developments adjacent to railway lands (lines and yards)
  - noise
  - vibration
  - safety
- iii) Compare the criteria against the existing and proposed land uses and show
  - mitigating measures required for existing developed land
  - unacceptable proposed land development schemes
  - recommended land uses for vacant adjacent lands



## SAFE TRAIN OPERATING SPEEDS

### Objectives:

To determine safe operating train speeds for trains handling dangerous commodities which pass through concentrations of high population.

### Methodology:

The theory behind this study is that the slower a train is travelling the less chance there is of a serious accident occurring if a derailment should happen. Therefore once a derailment has occurred and is detected by the train crew, there is a need to stop the train before a more serious accident occurs. A derailed car on a train can travel some distance before it causes a serious pile-up of railway cars. An important factor in causing the pile-up of cars is that the train encounters a track irregularity (bridge, at-grade crossing, turnout) and this causes the derailed car to upset completely and affect the other cars in the train.

It is therefore suggested that safe speed limits for trains carrying dangerous goods be established by undertaking the study outlined as follows:

- i) collect track data on all main tracks in Metro Toronto (gradients, curvature, location of track irregularities, sight lines)



- ii) sample existing trains carrying dangerous goods to determine:
  - average number of cars
  - average weight of cars
  - other pertinent physical characteristics
- iii) run a series of simulations using the Train Braking Distance Computer Programme and show for various:
  - train lengths (number and type of cars) and
  - train speedswhat distances would be required to stop the train
- iv) compare the stopping distances determined with the location of track irregularities and sight lines available
- v) determine what are maximum allowed train speeds that would permit stopping of the train within acceptable distances over various segments of track. If train speeds are too low to provide for efficient train speeds, given existing train sizes, determine from the simulation program what length of train can be permitted that would allow stopping of the train within acceptable distances.



## INSTALLATION OF TRAIN INFORMATION AT EMERGENCY CONTROL CENTRES

### Objective:

To determine what information should be provided at the local emergency stations (police, fire, ambulance, etc.) in advance of the arrival of trains carrying dangerous commodities.

### Methodology:

In order that emergency organizations in Metropolitan Toronto be provided with advance information on trains handling dangerous commodities a review of the following nature should be undertaken:

- i) determine what groups should be provided with information
- ii) determine precisely what information is presently available in existing railway computer systems
- iii) obtain agreement on what train information is needed at emergency control centres
- iv) outline changes needed in existing computer systems to accommodate emergency organizations
- v) assess existing computer facilities in railway companies and emergency control centres and outline what changes must be made
- vi) provide cost and time estimates for an implementation programme throughout Metropolitan Toronto.







A TIMELY OPPORTUNITY



April, 1978



## A TIMELY OPPORTUNITY

From time to time there are problems posed to public agencies which, in isolation, could be extremely expensive or difficult to solve. We believe that the current situation of the CPR rail lines in Toronto with the plans, proposals and problems of these lines, presents such an opportunity. The following is a discussion of the problems and opportunities.

### BACKGROUND

Toronto is a major centre for rail operations for both Canadian National (CN) and Canadian Pacific (CP). As these companies have built up their networks over the years, the various lines have focussed on the yards and operational centres in downtown Toronto. During the 1960's, when both railways found that their operations had outgrown their facilities, new suburban classification yards were constructed. CN's new Toronto yard is located in Vaughan Township and the CP yard is in Agincourt.

To access this new yard, CN upgraded its existing lines between Burlington, Georgetown and Malton and built a new by-pass line around Metropolitan Toronto between Malton and Pickering. This removed through freight traffic from the Lakeshore route between Burlington and Pickering and enabled the initiation of GO Transit commuter rail service on this line in 1967.

CP did not construct such a by-pass and has continued to run its trains through Central Toronto. By changing the focus of their activities from the West Toronto and Union Station areas to Agincourt, more through



traffic was added to the North Toronto line which carries traffic from West Toronto to Leaside through the residential communities on the north of Toronto's Central Area.

#### PROBLEM NO. 1

This additional traffic on the CP North Toronto line has caused increased noise, safety, and other environmental problems to the adjacent residential areas. Recent derailments and explosions of rail cars, with consequent loss of life, in the United States illustrates the potential danger of running heavy freight trains through populated areas. The safety aspect has not yet come to the fore but it may in the future.

More in the public eye has been the noise and other nuisance effects of having this heavily used freight line passing through residential areas. More than 50 trains a day use this line; these trains pass as close as 20 feet to many homes at high speeds of up to 50 miles per hour. The rail line also acts as a barrier to traffic, divides residential neighbourhoods and is not in scale with the settlement pattern of Central Toronto.

The land occupied by the North Toronto line is potentially quite valuable. It is fully serviced land located in a number of environments and which could be developed for residential or other uses. A recent estimate of the market value of this land was \$67 million. Thus, not only is the rail line a nuisance, but its removal would free-up valuable property for development.

#### PROBLEM NO. 2

The Ontario Government has committed itself to the start of a GO Transit commuter rail service on the CP line between Streetsville and downtown



Toronto. One of the stated purposes of the acquisition of the new double-deck rolling stock was to free-up the single-deck equipment for the Streetsville route. The double-deck equipment is now being delivered, making available the older equipment for the Streetsville line.

Recently CP Rail has completed a study of the improvements that would be needed to this line in order to provide the capacity to carry the commuter service in addition to the present heavy freight traffic. These costs are considerable, reputedly in the area of \$50 million, to provide sufficient capacity for a limited service of only four or five trains in the peak direction morning and evening. This is an extremely high capital cost for the number of potential users; however, the government is committed to the institution of this route through its public statements.

#### PROBLEM NO. 3

On May 1st the new Richmond Hill GO Transit commuter rail line will begin operation. This will provide peak hour commuter rail service between Richmond Hill and Union Station via the CN line in the Don Valley. Unfortunately the CN's Don Valley route has high degrees of curvature and steep gradients. This reduces the operating speed of the trains and will reduce the passenger appeal of the new service. It has been suggested that the train should be routed along an existing branch of the CN which joins the CP North Toronto line at Leaside and then should follow the much more direct CP route to Union Station. This would reduce the running time by at least 10 minutes and probably would allow the removal of much of the CN trackage from the Don Valley, improving the use of the area for park and recreational uses. The



CN route trains cannot use this line at the present time because all the CN traffic would have to cross the heavy CP freight traffic in the Leaside area at grade and this would impose unacceptable delays.

#### A POTENTIAL SOLUTION

All of these problems present considerable difficulties at the present time. However, there is a potential solution which might, at one time, solve all three problems. The potential solution would be to by-pass the through CP freight traffic around Metropolitan Toronto. This could be done by connecting the CP line to the existing CN by-pass line and having both railways share the line. This connection could be made near Milton or by constructing a new connection between the CP Streetsville line at Meadowvale and the CN by-pass line at Malton. This latter proposal would involve the construction of a new 10 mile rail line through Northern Mississauga at considerable capital cost; fortunately the entire length of this rail line is within the Parkway Belt and would be adjacent to the proposed Highway 407.

The present CN by-pass is double tracked in most places although in certain stretches, only one track exists. Additional traffic on this line might require some improvements to be made, either by the addition of tracks or by the upgrading of the signal system.

The use of the by-pass route for CP freight trains would be slightly shorter for trains travelling between Western Ontario and Chicago, and the Agincourt yard and several miles shorter for trains to and from Western Canada with consequent reductions in CP's operating costs. The handling of most



through freight trains in the Parkway Belt area would reduce environmental intrusion in residential areas as well as the possibility of casualties which might result from a major rail accident. It would also free-up the land now occupied by the North Toronto line for development.

The removal of most freight trains on the Streetsville line should make it much easier and much less costly to institute the promised commuter rail service on this line. This scheme also frees-up the CP line between Toronto and Malvern/Agincourt for a potential commuter rail service which has also been proposed but has not yet been committed as a project. The re-routing of the CN Richmond Hill GO Transit commuter rail service along the spur to Leaside and then via the CP line to downtown Toronto would reduce this trip by at least 10 minutes and 1½ miles.

#### NEXT STEP

This proposal appears, by combining the solutions for several problems into one, to be attractive. The logical next step is to investigate in more detail the potential costs and benefits to determine the feasibility of this scheme. There are some potential institutional problems in that the by-pass line would have to be shared and used by CN and CP trains, although this is done now in several parts of Canada, including on the Lakeshore line between Hamilton and Toronto which is operated by CN but over which CP has running right. The potential beneficiaries of this scheme are:

- CP Rail because of the value of the land freed-up for development and because of operational cost savings with the shorter rail route



- TATOA because of the lower capital investment needed for the committed Streetsville and potential Malvern commuter rail services and because of the reduced running times of the Richmond Hill trains
- CN because the use by CP of their by-pass line would allow them to share the costs of maintenance and operation of this route
- residents of North and Central Toronto amenity, the people of Toronto because of the improvements in environment and safety because of the removal of heavy freight traffic.

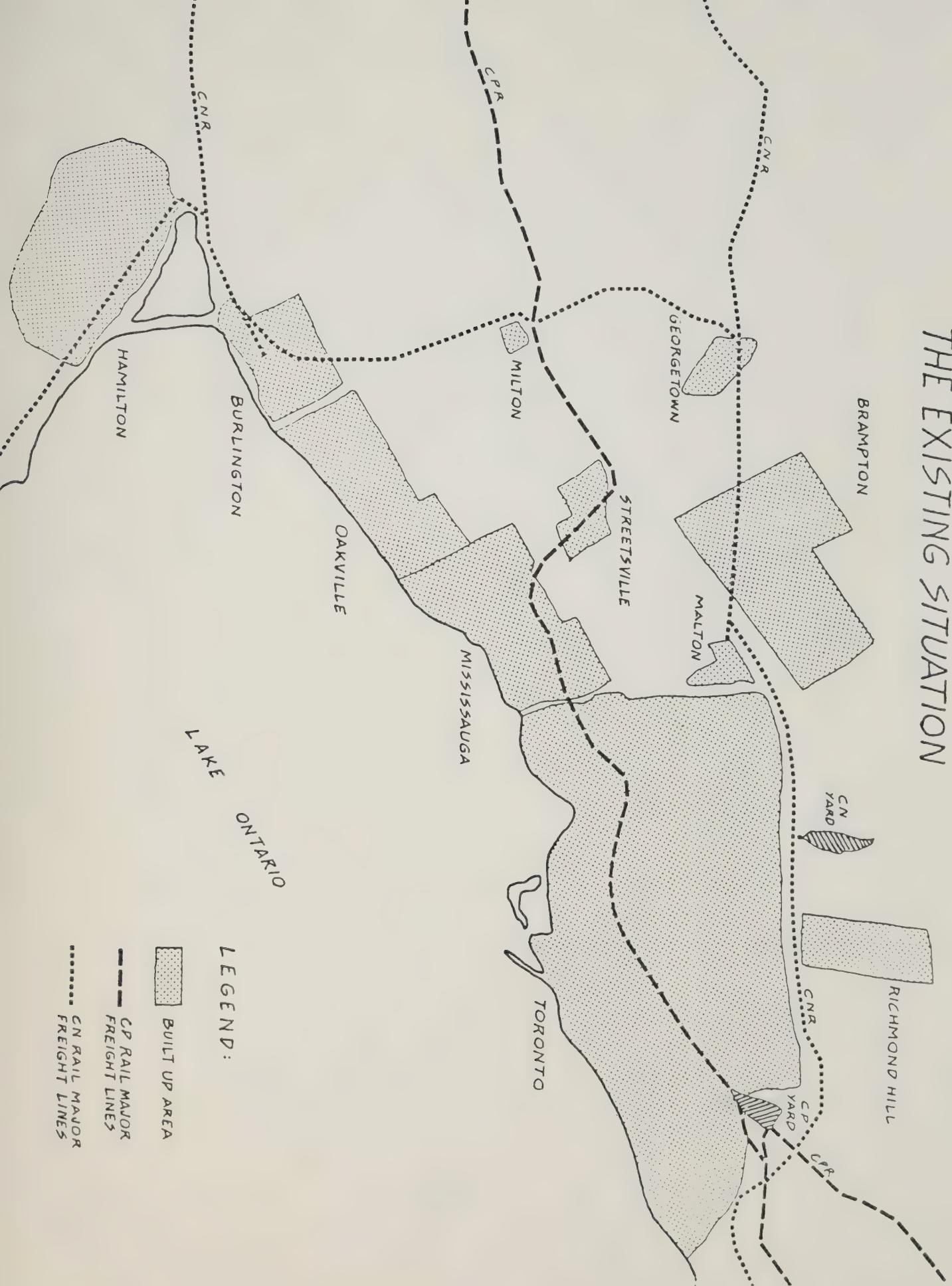
We suggest that a feasibility study of this project be instituted.

This feasibility study is of interest to the municipal, provincial and federal levels. Potentially, the level of government with the most to gain from this proposal would be the sponsor of the commuter rail system, the Provincial Government, although, to be affectively implemented, the Federal Government with its jurisdiction over railways must be involved.

Such a feasibility study could be undertaken at the various high levels of detail. To develop engineering costs could involve significant expenditures of money. It appears, to us, that this project should be initiated with a preliminary pre-feasibility study which would simply look at order of magnitude costs and order of magnitude benefits to see whether there is a potential pay-off. This pre-feasibility study would examine some of the institutional problems that might be encountered. The cooperation of the railways would have to be solicited to make such a pre-feasibility study workable. We would be pleased to develop this proposal in more detail.



FIGURE 1  
THE EXISTING SITUATION





## FIGURE 2 THE BY PASS ROUTE

